JOINT LEGISLATIVE TASK FORCE ON WATER RESOURCE MITIGATION REPORT

October 26, 2022

MEMBERS

Representative Steve Tharinger, Co-Chair
Senator Judy Warnick, Co-Chair
Representative Joe Fitzgibbon
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John Weidenfeller, Municipal Water Purveyors Representative
Peter Godlewski, Business Interests Representative
Lisa Pelly, Environmental Advocacy Organizations Representative
Carl Schroeder, Washington Cities Representative
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Introduction

In 2018, the Legislature created the Joint Legislative Task Force on Water Resource Mitigation (Task Force) as a part of Engrossed Substitute Senate Bill No. 6091, Sec. 301 (ESSB 6091). The Legislature directed the Task Force to review the treatment of surface water and groundwater appropriations as they relate to instream flows and fish habitat, and to recommend a mitigation sequencing process and scoring system to address such appropriations. The Legislature also directed the Task Force to review the Washington Supreme Court decision in *Foster v. Department of Ecology*, 184 Wn.2d 465, 362 P.3d 959 (2015).

In 2019, the Task Force submitted a report to the Legislature describing the formation and activities of the Task Force, the water mitigation pilot projects authorized by ESSB 6091, and challenges the Task Force faced in developing recommendations based on the progress of the pilot projects. The 2019 report can be accessed at:
https://leg.wa.gov/JointCommittees/WRM/Documents/2019%20JLTWRM%20Report.pdf

The Task Force recognizes that an increase in Washington's population together with climate change will further impact water availability. In the 2050s, Washington state is projected to see warming of +5.8°F (3.1-8.5°F). Washington's primary mechanism for storing water in the form of mountain snowpack, which is sensitive to warming. Additionally, the population of Washington is projected to increase by as much as 2.5 million by 2040. Water utilities and cities will need water rights to provide water to the increased population.

Currently, there are 29 federally recognized Tribes in Washington State. Tribal reserved rights may exist on or off the reservation, apply to surface and groundwater, are regulated under federal law, are not lost through non-use, and may be recognized by a treaty or an executive order. The Task Force recognizes the critical need for collaboration with Tribes on water issues in the state.

Overview of Task Force

Task Force Charge

The Legislature directed the Task Force to: review the treatment of surface water and groundwater appropriations as they relate to instream flows and fish habitat, develop and recommend a mitigation sequencing process and scoring system to address such appropriations, and review the Washington Supreme Court decision in *Foster v. Department of Ecology*. Additionally, the Legislature directed the Task Force to submit recommendations to the Legislature by November 15, 2019. The Task Force was reauthorized through the passage of Substitute House Bill No. 1080, Sec. 7024 (SHB 1080) in 2021, and the deadline for Task Force recommendations to the Legislature was extended to November 15, 2022. Minority recommendations supported by at least five Task Force members may be submitted.

Composition and Membership

The enabling legislation called for two members each from the largest caucuses of the Senate and House of Representatives to be appointed by the President of the Senate and Speaker of the House, respectively; one representative each from the departments of Ecology (Ecology), Fish and Wildlife (WDFW), and Agriculture, appointed by the respective agency directors; and several members appointed by consensus of the Task Force co-chairs representing a variety of interested parties. Those interested parties include the farming industry, cities, municipal water purveyors, business interests, environmental

organizations, and two federally recognized Indian tribes, one invited by recommendation of the Northwest Indian Fisheries Commission and the other invited by recommendation of the Columbia River Intertribal Fish Commission. The state agency representatives are not eligible to vote on Task Force recommendations.

The Task Force consists of the following members:

- Representative Steve Tharinger (D), Co-Chair
- Senator Judy Warnick (R), Co-Chair
- Representative Joe Fitzgibbon, (D)
- Senator Jim Honeyford (R)
- Representative Jacquelin Maycumber (R)
- Senator Jesse Salomon (D) ****
- Senator Kevin Van De Wege (D)
- Representative Jim Walsh (R) ***
- Carla Carlson, representing Northwest Indian Fisheries Commission**
- Dave Christensen, Department of Ecology*
- Megan Kernan, Department of Fish and Wildlife* ******
- John Weidenfeller, representing municipal water purveyors *******
- Peter Godlewski, representing business interests *****
- Lisa Pelly, representing an environmental advocacy organization
- Carl Schroeder, representing Washington cities
- Evan Sheffels, Department of Agriculture*
- Jeff Slothower, representing the farming industry
- Bruce Wishart, representing an environmental advocacy organization

*Non-voting member.
**Participating as a non-voting member.
*** appointed September 10, 2019, to replace Representative Buys
**** appointed June 14, 2021, to replace Senator Liias
***** appointed September 13, 2021, to replace Sarah Mack
****** appointed September 13, 2021, to replace Michael Garrity
******* appointed March 1, 2022, to replace Bob Hunter

Updates Resulting from 2019 legislation

Legislation enacted in 2019 made several adjustments to the Task Force and related provisions. First, any position on the Task Force left vacant does not count towards a quorum.[1] Second, the Task Force expiration date was extended to December 31, 2020, and, if determined appropriate by a majority of the members, the Task Force was authorized to update its 2019 recommendations by November 15, 2020, based on additional information generated from the pilot projects.[2] Additionally, Ecology was directed to provide an update on the mitigation plans for each of the pilot projects based on additional information developed after the initial report in November 2018.[3]

[1] Chapter 413, Laws of 2019, Sec. 7305 (3) (Substitute House Bill No. 1102)
[2] Chapter 413, Laws of 2019, Sec. 7305 (8)(a) (Substitute House Bill No. 1102)
[3] Chapter 413, Laws of 2019, Sec. 7305 (13) (Substitute House Bill No. 1102)

2021 Reauthorization

The Task Force was again reauthorized through the passage of SHB 1080 in 2021.[4] The language authorizing the Task Force remains the same with the exception of the following updates and changes:

- By November 15, 2022, the Task Force must make recommendations to the Legislature;
- By November 15, 2022, the Department of Ecology must provide the Task Force with an update on the mitigation plans based on additional information developed after November 15, 2018;
- During the period from November 16, 2019, through December 31, 2022, the work of the Task Force is limited to a review of any additional information that may be developed after November 15, 2019, as a result of the pilot projects, and an update of the Task Force's November 15, 2019, recommendations; and
- The Task Force expires December 31, 2022.[5]

Summary of *Foster v. Ecology*

Introduction

On October 5, 2015, the Washington State Supreme Court issued its ruling in *Foster v. Department of Ecology*, 184 Wn.2d 465, 362 P.3d 959 (2015). The Supreme Court in *Foster* held that Ecology improperly used the "overriding consideration of public interest" (OCPI) exception to approve a water right permit by the City of Yelm, reversing decisions of both the Thurston County Superior Court and Pollution Control Hearings Board (PCHB). According to the Supreme Court, the prior appropriation doctrine does not allow for any impairment, even de minimis impairment, of senior water rights, in accordance with the Court's earlier decision in *Postema v. Pollution Control Hearings Board*, 142 Wn.2d 68, 11 P.3d 726 (2000). Accordingly, out-of-kind mitigation may not be used to remedy impairments to senior water rights, and the OCPI exception may only be used to offset temporary impairment of minimum flows.

City of Yelm Municipal Water Permit

Due to its growing population, the City of Yelm applied to Ecology for a new municipal water permit to meet its increasing water needs. Both Ecology and the City of Yelm acknowledged that minimum flows would be impacted even with the mitigation plan, with Ecology asserting that the plan would still result in a net ecological benefit despite the net loss of water. Ecology conditioned the permit on a mitigation plan that included several strategies using both in-kind and out-of-kind mitigation, to account for the impairments to minimum flows that would result from the new water uses. Ecology generally may not issue a water right permit for any use of water that would result in withdrawals that impair minimum flows, unless "it is clear that overriding considerations of public interest [OCPI] will be served."[6] Ecology approved the permit under the OCPI exception based on a determination that water was available for appropriation for a beneficial use, and that appropriation would not impair existing water rights or be detrimental to the public welfare.

The City of Yelm permit was first appealed to the PCHB, which ruled in favor of Ecology and approved the permit. Although the PCHB found that Ecology's three-step test was not sufficiently stringent, the PCHB concluded that Ecology's analysis still met the statutory OCPI exception standards, properly considered all impacts to minimum flows, and mitigated impacts in ways that would clearly benefit fish and wildlife habitat and outweigh any negative impacts of minimum flow impairment. The PCHB's decision was

[4] Chapter 332 Laws of 2021, Sec. 7024 (Substitute House Bill No. 1080)
[5] Chapter 332 Laws of 2021, Sec. 7024 (Substitute House Bill No. 1080)
[6] RCW 90.54.020(a)

appealed to Thurston County Superior Court, which affirmed the PCHB's decision, and the Supreme Court granted direct review of the Superior Court's decision.

Supreme Court Analysis

After noting the similarities to *Swinomish Indian Tribal Community v. Department of Ecology*, 178 Wn.2d 571, 311 P.3d 6 (2013), the Supreme Court in *Foster* held that Ecology had exceeded its authority in granting the City of Yelm's permit under the OCPI exception, finding that: (1) the OCPI exception only permits temporary impairment of minimum flows; (2) municipal water needs do not qualify as "exceptional circumstances" needed to apply the OCPI exception; and (3) a mitigation plan may not use ecological benefit to correct impairment to a senior water right. The Supreme Court also upheld the standard established in *Postema,* finding even de minimis impairment to a senior water right to be a violation of the water code. In its analysis, the Supreme Court assumed the Legislature did not intend to use the terms "withdrawal" and "appropriation" synonymously in the water code. Accordingly, the Court concluded that the Legislature uses the term "appropriation" when assigning a permanent legal water right, and "withdrawal" when it intends to refer to a temporary use or diversion of water. A three-Justice minority of the Court dissented, disagreeing with both the majority's interpretation of the word "withdrawal" to mean a temporary use or diversion of water, and with the comparison of *Foster* to *Swinomish,* stating that the PCHB correctly had applied the law and that the permit and accompanying mitigation plan should be upheld.

Water Resource Mitigation Pilot Projects

Engrossed Substitute Senate Bill 6091 required Ecology to issue permit decisions for up to five water resource mitigation pilot projects. The purposes of the pilot projects are (1) to inform the Task Force process created by ESSB 6091 and (2) to enable the processing of water right applications that address water supply needs.

Ecology is authorized to issue water right permits in reliance upon water resource mitigation of impacts to instream flows and closed surface water bodies under the following mitigation sequence:

- Avoiding impacts by complying with mitigation required by adopted rules that set forth minimum flows, levels or closures, or making the water diversion or withdrawal subject to the applicable minimum flows or levels;
- Where avoidance of impacts is not reasonably attainable, minimizing impacts by providing new or existing trust water rights or through other types of replacement water supply resulting in no net annual increase in the quantity of water diverted or withdrawn from the stream or surface water body and no net detrimental impacts to fish and related aquatic resources; or
- Where avoidance and minimization are not reasonably attainable, compensating for impacts by providing net ecological benefits to fish and related aquatic resources in the Water Resource Inventory Area (WRIA) through in-kind or out-of-kind mitigation or a combination thereof, that improves function and productivity of affected fish populations and related aquatic habitat. Out-of-kind mitigation may include instream or out-of-stream measures that provide a net ecological benefit to existing water quality, riparian habitat, or other instream functions and values for which minimum instream flows or closures were established in that WRIA.

Ecology must monitor the implementation of these pilot projects, including all related mitigation, at least annually through the end of 2028.

Engrossed Substitute Senate Bill 6091 set forth criteria for eligible pilot projects:

- A city operating a Group A water system in Kitsap County and WRIA No. 15, with a population between 13,000 and 14,000;
- A city operating a Group A water system in Pierce County and WRIA No. 10 with a population between 9,500 and 10,500;
- A city operating a Group A water system in Thurston County and WRIA No. 11, with a population between 8,500 and 9,500;
- A nonprofit mutual water system operating a Group A water system in Pierce County and WRIA No. 12, with between 10,500 and 11,500 service connections; and
- An irrigation district located in Whatcom County and WRIA No. 1, solely for the purpose of processing changes of water rights from surface water to groundwater and implementing flow augmentation to benefit instream flows.

Water right applicants eligible to be processed as pilot projects under ESSB 6091 were required to notify Ecology of their interest in participating in the pilot program by July 1, 2018. Five water right applicants that met the eligibility criteria submitted applications to Ecology of their interest by that date:

- City of Port Orchard;
- City of Sumner;
- City of Yelm;
- Spanaway Water Company; and
- Ag Water Board of Whatcom County.

Once pilot project applicants notified Ecology of their interest, applicants then worked to develop a proposed mitigation strategy in accordance with the avoid-minimize-compensate sequence established by ESSB 6091. Once mitigation strategies have been developed, applicants submit a draft Report of Examination (ROE) to Ecology. Ecology reviews each ROE and make it available to the public for a 30-day comment period. At the end of the public comment period, modifications to the ROE may be made if needed. Ecology then issues a final decision on the ROE, which will be made available for a 45-day public comment period.

As required in ESSB 6091, Ecology provided the Task Force with information on conceptual mitigation plans for each pilot projects by November 15, 2018. A description of the conceptual mitigation plans for the five pilot projects is located on the Task Force webpage at http://leg.wa.gov/JointCommittees/WRM/Documents/EcologyConceptutalMitigationPlans.pdf.

Engrossed Substitute Senate Bill 6091 requires Ecology to expedite processing of applications for water resource mitigation pilot projects in order to ensure that the processing of pilot projects could inform the task force process in a timely manner. ESSB 6091 also requires each pilot project applicant to reimburse Ecology for Ecology's costs of processing its application.

The City of Yelm submitted a watershed mitigation plan to Ecology in April 2021. The mitigation plan uses both in-kind (direct replacement flow) and out-of-kind (riparian protection and habitat improvements) that demonstrate achieving a net ecological benefit (NEB). The City's Model documented potential impacts to regulated waterbodies through a conservative, detailed hydrological analysis. In instances where avoidance and minimization are not reasonably attainable, the City has advanced

analysis of proposed mitigation in the context of achieving a NEB in WRIAs 11 and 13. Through interlocal agreements in both WRIAs, Yelm, together with Olympia and Lacey, have documented through financial and institutional controls that the mitigation will be fully implemented and remain in place for the full duration of the anticipated water use. These agreements include monitoring provisions and associated cost allocation. The monitoring plans include contingency and corrective actions if goals and measures for specific habitat projects are not achieved.

The City of Yelm and Ecology worked on a draft ROE that was released in February 2022 for public comment. No comments were received. Additionally, Ecology and the City of Yelm worked with the Nisqually, Squaxin, and Puyallup tribes to get their input on the draft ROE. The final ROE was posted on May 9, 2022. In June 2022, Ecology issued new water rights, 942 acre feet per year, to the City of Yelm. This new water right will help create nearly 5,000 new water connections and help Yelm provide water to its citizens for the next 20 years.

As of November 2022, the timeline by which the other pilot project applicants are projected to submit their draft ROEs to Ecology is:

- City of Sumner: mid-year 2023
- Spanaway Water Company: is awaiting the release of a new United States Geological Survey (USGS) model prior to developing a mitigation plan; however, it is still apparent that there will or could be impacts, in very small quantities, in locations so far afield from the company's service area that mitigation options may not be available. This may mean that this pilot project cannot proceed because there would need to be an extensive and expensive mitigation package and it would not be feasible for the company.
- City of Port Orchard: end of 2022
- Ag Water Board of Whatcom County: has submitted a water right application to Ecology for processing the streamflow augmentation project on Dakota creek and is working with Ecology on the mitigation sequencing steps.

Topics of Discussion

Conservation

Background

Washington - General water conservation requirements.

Under the Water Resources Act of 1971, Chapter 90.54 RCW, federal, state, and local governments, individuals, corporations, groups and other entities are encouraged to carry out practices of conservation as they relate to the use of the waters of the state. In addition to traditional development approaches, improved water use efficiency, conservation, and use of reclaimed water are required to be emphasized in the management of the state's water resources. In some cases, conserved water will be a potential new source of water with which to meet future needs throughout the state. Use of reclaimed water is encouraged through state and local planning and programs with incentives for state financial assistance recognizing programs and plans that encourage the use of conservation and reclaimed water use.

Also under the Water Resources Act of 1971, state and local governments, individuals, corporations, groups, and other entities are encouraged to carry out water use efficiency and conservation programs and practices consistent with the following principles:

- Water efficiency and conservation programs should use an appropriate mix of economic incentives, cost share programs, regulatory programs, and technical and public information efforts. Programs which encourage voluntary participation are preferred.
- Increased water use efficiency and reclaimed water should receive consideration as a potential source of water in state and local water resource planning processes. In determining the cost-effectiveness of alternative water sources, consideration should be given to the benefits of conservation, wastewater recycling, and impoundment of waters. Where reclaimed water is a feasible replacement source of water, it must be used by state agencies and state facilities for nonpotable water uses in lieu of the use of potable water.
- In determining the cost-effectiveness of alternative water sources, full consideration should be given to the benefits of storage which can reduce the damage to stream banks and property, increase the utilization of land, provide water for municipal, industrial, agricultural, and other beneficial uses, provide for the generation of electric power from renewable resources, and improve streamflow regimes for fishery and other instream uses.
- Entities receiving state financial assistance for construction of water source expansion or acquisition of new sources shall develop, and implement if cost-effective, a water use efficiency and conservation element of a water supply plan.
- State programs to improve water use efficiency should focus on those areas of the state in which water is overappropriated; areas that experience diminished streamflows or aquifer levels; regional areas that the governor has identified as high priority for investments in improved water quality and quantity, including the Spokane river, the Columbia river basin, and the Puget Sound; areas most likely to be affected by global warming; and areas where projected water needs, including those for instream flows, exceed available supplies.
- Existing and future generations of citizens of the state of Washington should be made aware of the importance of the state's water resources and the need for wise and efficient use and development of this vital resource. In order to increase this awareness, state agencies should integrate public information programs on increasing water use efficiency into existing public information efforts. This effort shall be coordinated with other levels of government, including local governments and Indian tribes.

Under Washington's water code, Chapter 90.03 RCW, based on the tenet of water law that precludes wasteful practices in the exercise of rights to the use of waters, Ecology is required to reduce these practices to the maximum extent practicable, taking into account sound principles of water management, the benefits and costs of improved water use efficiency, and the most effective use of public and private funds.

Ecology may require metering of surface water diversions and groundwater withdrawals as a condition for new water right permits and may also require reports regarding such diversions and withdrawals as to the amount of water being diverted or withdrawn.

Owners and operators of sewage systems must obtain approval of plans for the construction of new sewage systems and improved or expanded sewage systems from Ecology or its local government designee. Such sewer plans must include a discussion of water conservation measures considered or underway that would reduce flows to the sewerage system and an analysis of their anticipated impact on public sewer service and treatment capacity.

Washington - Municipal water conservation requirements.

Water conservation for municipal purposes is required by the 2003 municipal water law, Second Engrossed Second Substitute House Bill 1338 (2E2SHB 1338). The primary conservation requirements of 2E2SHB 1338 are now codified at RCW 70A.125.170. Under 2E2SHB 1838, the Department of Health (DOH) must adopt rules to implement the conservation requirements; those rules are codified at Chapter 246-290 WAC. The municipal water conservation requirements apply to Group A community water systems with 15 or more residential connections and Group A non-community systems that provides water for residential uses to a non-residential population for 25 or more people for 60 or more days per year.

Under the 2003 municipal water law, the DOH must develop conservation planning requirements which ensure that municipal water suppliers implement programs to integrate conservation with water system operation and management and identify how to fund and implement conservation activities. These requirements apply to all municipal water suppliers, although they must be tailored to be appropriate to system size, forecasted system demand, and system supply characteristics.

Conservation planning requirements adopted by the DOH must include the selection of cost-effective measures to achieve a system's water conservation objectives, evaluation of the feasibility of adopting and implementing water delivery rate structures that encourage water conservation, evaluation of the system's water distribution system leakage and an identification of any steps necessary for achieving leakage standards, and collection and reporting of water consumption, source production, and water purchase data and the frequency for reporting such information.

The DOH must also develop water distribution system leakage standards. It must institute a graduated system of requirements based on levels of water system leakage, but must not require less than 10 percent leakage for the total system's supply. The DOH must establish minimum requirements for water conservation performance reporting which must include the adoption and achievement of water conservation goals by suppliers, the adoption of implementation schedules, a public reporting system for regular reviews of conservation performance against adopted goals, and requirements for modifying plans if conservation goals are not being met.

A municipal water supplier with 1,000 or more service connections must, in preparing its regular water system plan updates, describe its conservation measures, the improvements in efficiency resulting from the conservation measures over the previous six years, and projected effects of conservation on delaying its use of inchoate (as yet unused) water rights before it may divert or withdraw additional inchoate water.

As a result of the passage of Substitute House Bill 1397 in 1989, the State Building Code Council was required to adopt rules that implement and incorporate water conservation performance standards for certain plumbing fixtures. The state water conservation performance standards superseded all local government codes. The state water conservation performance standards were eventually superseded by federal standards which were as strong or stronger than the state-level standards, and were subsequently repealed by the passage of Second Substitute House Bill 1444 in 2019.

Washington - Use of reclaimed water.

The Department of Ecology adopted rules for the use of reclaimed water in 2018, which are codified in Chapter 173-219 WAC. The rules address all aspects of reclaimed water, including permitting for the generation, distribution, and use of reclaimed water across Washington. The rules apply to all existing

and proposed facilities. A facility that reclaims water may not impair any existing water right downstream from any freshwater discharge point of such a facility unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right.

Concepts and ideas discussed by presenters at work sessions

Elements of water conservation - Municipal.

There are four general types of municipal water conservation:[7]

- customer programs;
- rate structure / price impacts;
- system operation improvements; and
- plumbing codes / standards.

Examples of future opportunities for improvement within each of these types of conservation include, among others:[8]

- customer programs:
    - metering technology to monitor use and leaks;
    - landscaping water; and
    - commercial indoor.
- rate structure / rate impacts: Improvement opportunities for some utilities, such as charging more per unit of water as more water is used.
- system operation improvements: Improvement opportunities such as increased leak detection and repair, though funding can be a limiting factor.
- plumbing codes / standards:
    - Sub-metering for multifamily residences; and
    - Landscape requirements.

Elements of water conservation - Agricultural.

There are multiple categories of water conservation and efficiency in the agricultural water distribution system, including:[9]

- piping;
- lining and sealing canals;
- re-regulating reservoirs; and
- pumping back seepage water.

There are also multiple types of on-farm water conservation and efficiency, including:[10]

- drip irrigation;
- under-tree micro-spray;
- center pivot and linear sprinklers;
- wheel lines;

[7] "Seattle Public Utilities Water Conservation Program"; Kelly O'Rourke, Seattle Public Utilities; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 2, 2021.

[8] Id.

[9] "Water Supply & Conservation"; Scott Revell, Roza Irrigation District; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 2, 2021.

[10] "Water Supply & Conservation"; Scott Revell, Roza Irrigation District; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 2, 2021.

- hand lines;
- ponds;
- shade cloth; and
- cover grasses.

The Department of Ecology (Ecology) provides cost-share funding for water conservation and efficiency projects through the irrigation efficiencies program.

Washington - Water conservation in practice.
The City of Walla Walla began a 10-year leak repair program in 2010 that reduced leaks by making repairs to water distribution infrastructure. The repair program reduced distribution system leakage from approximately 35 percent in 2010 to approximately 18 percent in 2020, with an overall leakage goal of 10 percent. The leak repair program now saves over 600 million gallons per year.[11]

The City of Mesa began to charge for water by volume in 2014. As a result, Mesa's water production was able to decrease by 26.4 million gallons per year, a decrease of 41 percent.[12]

From 1990 to 2015, on a statewide level in Washington:[13]
- Washington's population increased by 47 percent;
- Washington's domestic and public water use decreased by 23 percent; and
- Washington's per capita water use decreased by 48 percent.

As a result of conservation measures, the City of Seattle now uses the same amount of water that it did in the 1950s, even though the population has doubled since that time.[14]

Colorado - Water conservation.[15]
The Colorado Water Conservation Board (CWCB) is Colorado's water policy and planning agency. The CWCB is not a regulatory agency. It is self-funded through the CWCB's water loan program. Its responsibilities include water supply planning, watershed and flood protection, and stream and lake protection. The CWCB operates on an incentive-based, cooperation-based model, that seeks to achieve compliance through access to state funding. By contrast, the Colorado Department of Public Health and Environment, which enforces the Safe Drinking Water Act and the Clean Water Act, is regulation-based and achieves compliance through fines and punitive measures.

The CWCB implements multiple Colorado laws, including laws that require water efficiency plans, annual data reporting, integration of water efficiency and land use. The CWCB also administers the Water Efficiency Grant Fund. Rainwater harvesting pilot projects are authorized under Colorado law. Colorado

[11] "Water Use Efficiency in Public Water Systems"; Mike Means, Washington State Department of Health; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 2, 2021.
[12] Id.
[13] Id.
[14] "Seattle Public Utilities Water Conservation Program"; Kelly O'Rourke, Seattle Public Utilities; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 2, 2021.

[15] "Perspectives on Colorado Water Efficiency"; Kevin Reidy, Colorado Water Conservation Board; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 2, 2021.

law also requires mandatory use of metered delivery and billing systems. The sale of inefficient indoor water fixtures in Colorado is essentially prohibited.

At the local planning level, Colorado law provides that if a local government includes a water element in its comprehensive plan, the plan must include water conservation policies. This requirement is not punitive, but rather is enforced through access to funding provided by Colorado's Department of Local Affairs. Water conservation plans must evaluate certain required elements; these plans must then be revised and submitted for approval to the CWCB every seven years. One element requires water providers to evaluate "best management practices for water demand management, water efficiency, and water conservation that may be implemented through land use planning efforts."

Colorado water providers are required to submit annual water demand and water conservation data to the CWCB, including:

- population;
- annual water produced;
- monthly customer category metered water consumption;
- current rate structure;
- integration of water and land use planning;
- water conservation programs; and
- expenditures on water conservation of programs and staff.

Colorado has multiple water re-use rules, including rules related to non-potable uses, greywater control and use, and direct potable re-use.

The Colorado Water Plan sets out multiple objectives related to water conservation, including:

- Achieve 400,000 acre-feet of municipal and industrial water conservation by 2050; and
- By 2025, 75 percent of Colorado residents will live in communities that have incorporated water-saving actions into land-use planning.

The CWCB provides for funding for multiple activities related to the Colorado Water Plan, including:

- Land use and water trainings and guidance;
- Large-scale landscape retrofits;
- Landscape professional training;
- Greywater new home pilot demonstration project; and
- Direct potable re-use demonstration projects.

Nevada - Water conservation.[16]

The Southern Nevada Water Authority (SNWA), which serves southern Nevada, including the greater Las Vegas area, recycles 99 percent of the water used indoors.

The SNWA relies on the Colorado River to meet 90 percent of its water needs. As a result of significant reductions in the amount of water available from the Colorado River, Southern Nevada has undertaken four major activities to meet its water needs:

[16] "Meeting Water Demands in Southern Nevada"; Andrew Belanger, Southern Nevada Water Authority; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.

- Reducing demands / water conservation;
- Colorado River negotiations;
- Securing alternate supplies; and
- Addressing infrastructure needs.

Actions taken by the SNWA to reduce water demand include:

- Landscape development codes;
- Golf course water budgets;
- Mandatory watering schedules;
- Water waste enforcement;
- Tiered water rates; and
- Incentive programs.

As a result of demand reduction programs, per capita water usage in the SNWA service area has fallen from 211 gallons per day in 2000 to 113 gallons per day in 2021, a 48 percent reduction in per capita water consumption, and an overall 26 percent reduction in the region's Colorado River consumption.

Regulations adopted by the SNWA related to water conservation include:

- No turf in new homes;
- No turf in new commercial properties;
- Golf course water budgets;
- Mandatory watering restrictions;
- Water-waste prohibition; and
- Limits on manmade ornamental water features.

The SNWA has also adopted an incentive program that pays residents and businesses to convert grass to more water-efficient plants and trees. This has resulted in the replacement of 202 million square feet of grass with water-smart landscaping since 1999, and a savings of 163 billion gallons of water. The SNWA also operates an incentive program for owners of commercial and multifamily properties who install water-efficient devices and technology. Property owners can earn up to $45 for every 1,000 gallons of water saved.

Looking to the future, the SNWA recently adopted a new Water Resource Plan to introduce initiatives that, when implemented, will help meet a new conservation goal of 86 gallons per capita per day. These water conservation initiatives will focus on the following areas:

- Landscape efficiency;
- Cooling efficiency (many buildings in the SNWA service area use evaporative cooling towers);
- Water loss control;
- Irrigation compliance; and
- New development efficiency.

At the statewide level, Nevada recently enacted a prohibition on using community water supplies to water existing non-functional grass, such as neighborhood entries, streetscapes, medians, and roundabouts. The prohibition does not apply to single family residences. Each square foot of non-functional turf accounts for approximately 55 gallons of lost water per year.

Texas - Water conservation.[17]

Texas has engaged in water planning at a statewide level since 1997. The purpose of statewide water planning is to provide for the orderly development, management, and conservation of water resources, and to prepare for and respond to drought conditions. For purposes of planning, the state is divided into smaller geographic regions that each engage in their own regional water planning process.

Water conservation is one of the first water management strategies that must be considered by the regional water planning groups when meeting a future need.

Texas's state water planning requirements establish multiple reporting obligations for water providers, including:

- Water use survey - must be prepared annually by 7,000 entities;
- Water loss audit - prepared every five years by 4,000 retail water suppliers;
- Water loss audit - prepared annually by 600 retail water suppliers;
- Water conservation plan - revised every five years for 800 entities; and
- Annual conservation report - the annual report on the implementation of the water conservation plan.

The Texas Water Development Board serves as a statewide body that provides planning and technical support to the regional water planning groups, including:

- Demand and population estimates;
- Agricultural water use estimates;
- Water loss audit data;
- Targets and goals from annual conservation reports;
- Best management practices that are being implemented; and
- Copies of water conservation plans provided by each entity.

Conservation as a water source represents 29 percent of the total volume of water that the 2022 Texas Water Plan projects will be needed to serve Texas's population by 2070, including:

- 977,000 acre feet per year in municipal conservation;
- 1.2 million acre feet per year in agricultural conservation; and
- 44,000 acre feet per year in industrial conservation.

Water conservation is recommended for more than half of the approximately 3,000 water user groups in Texas, at an estimated overall capital cost of more than $7 billion.

California - Water conservation.[18]

California's population has grown from approximately 15 million people in 1960 to just under 40 million people as of 2015. Over that same time period, California's municipal water consumption has risen from

[17] "State Water Planning & Conservation in Texas"; John T. Sutton, Texas Water Development Board, and Karen Guz, San Antonio Water Systems; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.

[18] "California Water: Urban and Agriculture"; Amy Talbot, Regional Water Authority - Sacramento Region, and Emily Rooney, Agricultural Council of California; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.

approximately 4 million acre feet in 1960 to a high of approximately 10 million acre feet in 1995, and has since dropped back down to approximately 6 million acre feet as of 2015. During that same time period, California's agricultural water consumption has gone from approximately 29 million acre feet in 1960 to a high of approximately 42 million acre feet in 1995, and has since dropped back down to approximately 31 million acre feet in 2015. In the agricultural sector, almond farmers have reduced the amount of water required to grow each almond by 33 percent between the 1990s and the 2010s, and are working to further reduce that amount by another 20 percent by 2025. In the dairy industry, the amount of water required to produce each gallon of milk in California has gone down by more than 88 percent over the past 50 years.

Legislation enacted in California required water suppliers to adopt a budget-based approach to water planning and conservation. Water suppliers are required to prepare an annual water supply and demand assessment. The water use objective for a water supplier includes an indoor residential use standard, an outdoor residential use standard, a commercial / industrial / institutional use standard, and a water loss standard, among other elements.

The Sustainable Groundwater Management Act (SGMA), enacted in 2014, requires local agencies to form groundwater sustainability agencies for the high and medium priority basins. Groundwater sustainability agencies develop and implement groundwater sustainability plans to avoid undesirable results and mitigate overdraft within 20 years. Plans for high-priority basins were submitted in 2020 and these basins must achieve sustainability by 2040. Plans in medium-priority basins were submitted in 2022 and these basins must achieve sustainability by 2042. The SGMA structure allows for local control with state assistance and enforcement. The California Department of Water Resources assists with technical, planning and financial assistance, while the State Water Resources Control Board handles enforcement. Advantages of the SGMA include local control, state assistance when needed, and the fostering of creative solutions. Challenges associated with the SGMA include the fallowing of up to 1,000,000 acres, and significant shifts in land use and crop production.

Looking to the future, there are positive aspects of California's water conservation outlook, including increased efficiency, targeted and innovative programs, and standardized information. There are also challenges, including cost effectiveness, a possible shift toward a top-down rather than a bottom-up approach to conservation, ongoing environmental challenges such as drought and wildfires, and customer communication.

Concepts and ideas from the chart of topics (from conservation and demand management categories)

- Municipal/agricultural
- Water use reductions
- Low-volume plumbing codes
- Best management practices
- Discussion of new and higher conservation responsibilities with new municipal water rights accessed through this new process.
- Requiring pretreatment
- Reduction of leak rates
- Pricing

Mitigation

Background

Mitigation in the *Foster* Decision.

On October 5, 2015, the Washington State Supreme Court (Court) issued its ruling in *Foster v. Department of Ecology*, 184 Wn.2d 465, 362 P.3d 959 (2015) (*Foster*). The city of Yelm applied to Ecology for a new municipal water right permit to meet its increasing water needs. Ecology conditioned the permit on an extensive mitigation plan that included several strategies using both in-kind and out-of-kind mitigation to account for the impairment to minimum flows that would result from the new water uses. The mitigation plan included offsetting the total quantity of water through in-kind or "wet water" mitigation. However, the timing of the mitigation did not match perfectly—the in-kind mitigation occurred during the low-flow period only. In Yelm's water right permit decision, Ecology determined the "overriding consideration of public interest" (OCPI) exception was appropriate for use in this water right decision since it resulted in a net ecological benefit, despite the net loss of water.

The Court in *Foster* held that the prior appropriation doctrine does not allow for any impairment, even de minimis impairment, of senior water rights, in accordance with the Court's earlier decision in *Postema v. Pollution Control Hearings Board*, 142 Wn.2d 68, 11 P.3d 726 (2000) (*Postema*). Accordingly, out-of-kind mitigation may not be used to remedy impairments to senior water rights, and the OCPI exception may only be used to offset temporary impairment of minimum flows.

Mitigation Sequencing.

The legislation establishing the task force described a mitigation sequence under which Ecology may issue water right permits in reliance upon water resource mitigation of impacts to instream flows and closed surface water bodies. The mitigation sequence is as follows:

- Avoid: Avoiding impacts by complying with mitigation required by adopted rules that set forth minimum flows, levels or closures, or making the water diversion or withdrawal subject to the applicable minimum flows or levels.
- Minimize: Where avoidance of impacts is not reasonably attainable, minimizing impacts by providing new or existing trust water rights or through other types of replacement water supply resulting in no net annual increase in the quantity of water diverted or withdrawn from the stream or surface water body and no net detrimental impacts to fish and related aquatic resources.
- Compensate: Where avoidance and minimization are not reasonably attainable, compensating for impacts by providing net ecological benefits to fish and related aquatic resources in the WRIA through in-kind or out-of-kind mitigation or a combination thereof, that improves function and productivity of affected fish populations and related aquatic habitat. Out-of-kind mitigation may include instream or out-of-stream measures that provide a net ecological benefit to existing water quality, riparian habitat, or other instream functions and values for which minimum instream flows or closures were established in that WRIA.

Mitigation sequencing is also discussed in the Washington Administrative Code (WAC) in a couple of places. In Chapter 173-26 WAC, governing master programs under the Shoreline Management Act, master programs must include provisions that require proposed individual uses and developments to analyze environmental impacts of a proposal and include measures to mitigate environmental impacts not otherwise avoided or mitigated to assure no net loss of shoreline ecological functions. Master programs must include a requirement that mitigation measures be applied in the following sequence of

steps listed in order of priority:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations;
- Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.
- Monitoring the impact and the compensation projects and taking appropriate corrective measures.

Mitigation requirements are also described in Chapter 220-660 WAC for hydraulic projects, defining mitigation as sequentially avoiding impacts, minimizing and rectifying unavoidable impacts, and compensating for remaining impacts. This mitigation must achieve no net loss. "Mitigation sequence" means the successive steps that the Department of Fish and Wildlife (WDFW) and the applicant must consider and implement to protect fish life when constructing or performing work. These steps must be considered and implemented in the order listed:

- Avoid the impact altogether by not taking a certain action or parts of an action.
- Minimize unavoidable impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking steps to reduce impacts.
- Rectify the impact by repairing, rehabilitating, or restoring the affected environment.
- Reduce or eliminate the impact over time.
- Compensate for remaining unmitigated impacts by replacing, enhancing, or providing substitute resources or environments.

Mitigation sequencing is also described in Chapter 173-700 WAC related to wetland mitigation, defining wetland mitigation to mean sequentially avoiding impacts, minimizing impacts, and compensating for remaining unavoidable impacts to wetlands or other aquatic resources. Further, compensatory mitigation means the restoration, creation, enhancement, or in exceptional circumstances, the preservation of wetlands or other aquatic resources for the purpose of compensating for unavoidable impacts to wetlands or other aquatic resources which remain after all appropriate and practicable avoidance and minimization have been achieved.

Concepts and ideas discussed by presenters at work sessions

Mitigation Under the *Foster* Decision.

In the city of Yelm's water right application, the Pollution Control Hearings Board (PCHB) determined that every feasible in-kind mitigation option was exhausted, all impacts were "fully mitigated and trackable over time," out-of-kind benefits to fish and stream habitat were "significant and clearly established through sound science," and "permanent and net ecological benefit to affected streams, more than sufficient to offset minor depletion of water." The Court acknowledged the "net ecological benefit" but concluded that was not enough for OCPI.[19]

The *Foster* decision has affected Ecology's work in various ways and one example is a project in Whatcom County. Ecology was funding two projects in Whatcom County: (1) pilot project to augment creek with

[19] "*Foster* Mitigated Water Permits"; Dave Christensen, Department of Ecology; presentation delivered to the Joint legislative Task Force on Water Resource Mitigation on June 22, 2018.

groundwater; and (2) transfer irrigation surface water rights to groundwater wells. Ecology halted the transfers after the *Foster* decision.[20] Additionally, the *Foster* decision has affected Ecology's decisions related to:

- new withdrawals;
- groundwater right changes; and
- surface to groundwater right changes.[21]

Another example of work that is potentially impacted by the *Foster* decision are the plans or plan updates that 15 planning groups are implementing under the Streamflow Restoration Law. These plans could include a mix of projects, such as projects to offset estimated impacts from 20 years of development using permit exempt wells. Highest priority projects address impacts in-time and in-place, but out-of-time and out-of-place offsets are authorized. Some potential projects would require water right permit decisions and thus would conflict with *Foster* decision.[22]

The *Foster* decision has set up a "perfect" mitigation requirement for any, even de minimis, depletions of regulatory minimum instream flows. For example, a water right applicant must supply mitigation that is in kind (wet water mitigation—and not other types of mitigation, like habitat improvements), in time (at the same time as the modeled or actual impairment), and in place (in the same location within the water body).[23]

Mitigation in Other States.

Colorado.

In Colorado, the state water regulatory agency may accept impairment to an instream flow if:

- through mitigation, it can continue to preserve or improve the natural environment to a reasonable degree notwithstanding the injury; or
- it is a de minimis impact to an instream flow (i.e., has a 1 percent or less depletive effect).

The state water regulatory agency in Colorado has discretion in determining whether to accept mitigation, even where that mitigation is not in kind, in time, and in place. [24]

In Colorado, pumping tributary groundwater that impacts surface water requires that pumping depletion be replaced by a substitute supply through a plan for augmentation. An Augmentation Plan is a plan to replace induced stream depletions using a substitute supply of water, approved by the Water Court, to address injury.[25]

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[20] "How the *Foster* Decision Affects Our Work"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 10, 2020.

[21] "*Foster* Decision Refresher"; Dave Christensen, Department of Ecology; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

[22] "How the *Foster* Decision Affects Our Work"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 10, 2020.

[23] "Water Resources Laws Regarding Impairment and Mitigation of Regulatory Instream Flows in Other States Compared to Washington State"; Adam Gravley, Jenna Mandell-Rive, and Rachael Lipinski, Van Ness Feldman, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.

[24] Id.

[25] "Surface Water and Ground Water Interaction - Colorado Ground Water Administration"; Kevin Rein, Colorado Division of Water Resources, presentation delivered to the Joint Legislative Committee on Water Resource Mitigation on November 10, 2020.

Idaho.
Idaho requires mitigation for transfers where: (1) modeled depletions in any reach increase by more than 2/acre feet per trimester; (2) modeled depletions in any reach increase by more than 10 percent, and (3) modeled depletions in any reach are greater than 10 percent of the sum of all depletions modeled in all reaches.[26]

The Idaho Water Resource Board (IWRB), through the Director of the Department of Water Resources, in association with water districts and IWRB-appointed local rental committees, operates the Water Supply Bank, a water exchange market, to facilitate the acquisition and voluntary exchange of water rights in Idaho and to satisfy new and supplemental water uses. Idaho's Water Supply Bank program includes:

- The Board's Bank, which is a statewide, water exchange marketplace facilitating the lease and rental of water rights;
- Regional Rentals Pools, which are regional (basin-specific) water exchange markets to facilitate the lease and rental of storage water or natural flow water rights; and
- The Shoshone-Bannock Tribal Water Supply Bank, which is an Upper Snake River reservoir storage water rental program operated by the Tribes.[27]

The minimum stream flow statute allows the IWRB to file for unappropriated water to be used for instream flows and allows any person to petition the IWRB to file for a minimum flow right. Minimum instream flows must be approved by the legislature. Mitigation is allowed, including mitigation to offset injury to instream flows. There is no obligation for mitigation to "enhance" environmental conditions, it must only mitigate injury.[28]

California.
In California, new water rights and changes of use of existing water rights cannot unreasonably affect or substantially injure any senior legal user of water (referred to as the "no injury rule"). There is no clearly identifiable statutory or regulatory language, or case law, on whether conditions placed on water right permits, licenses, or changes of use to preserve instream flows may be specifically impaired, modified, or removed. There is no clearly identifiable statutory or regulatory language, or case law, on whether the public trust doctrine may be invoked to impair existing instream flows for other public benefits. There is no clearly identifiable statute, regulation, or case law that provides a standard for mitigating impacts to minimum instream flows.[29]

Kansas.
In Kansas, the minimum desirable streamflow law allows the state legislature to set minimum flows for specific waterbodies. There is no clearly identifiable statute, regulation, or case law that provides a specific mitigation standard for instream flows.[30]

[26] "Water Use Mitigation and Water Banking in Idaho"; Remington Buyer, Idaho Water Resources Board, presentation delivered to the Joint Legislative Task Force on November 10, 2020.
[27] Id.
[28] "Water Resources Laws Regarding Impairment and Mitigation of Regulatory Instream Flows in Other States Compared to Washington State"; Adam Gravley, Jenna Mandell-Rive, and Rachael Lipinski, Van Ness Feldman, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.
[29] Id.
[30] Id.

Montana.
State law in Montana recognizes that the creation of an instream flow may impair existing water rights and provides a time-limited remedy. The Department of Natural Resources and Conservation (DNRC) may modify an appropriated water reservation for instream flows if all or part of the reservation is not required for its purpose and the need for reallocation outweighs the need shown by the original reservation. Reallocations cannot occur on any stream or river more than once every five years. There is no clearly identifiable statute, regulation, or case law that provides a specific mitigation standard for either appropriated or leased instream flow rights.[31]

Nevada.
The State Engineer is authorized to grant a water right application to protect instream flow rates, provided the appropriation does not interfere with senior water rights. There is no clear distinction between water rights for instream flows versus those for other beneficial uses requiring a diversion. The State Engineer is not authorized to impose mitigation conditions on new water right permits or changes of use. The Nevada Supreme Court has held there is no statutory basis for the State Engineer to impose mitigation conditions. However, dicta indicates that if mitigation were judicially recognized, it would have to be full mitigation in kind, place, and time.[32]

Oregon.
The Instream Water Right Act converted prior Minimum Perennial Flows that had been established under the 1955 act to instream rights after an administrative process, and also allows for a request to the Oregon Water Resources Department (OWRD) by the Oregon Department of Environmental Quality, Oregon Parks and Recreation Department, or the Oregon Department of Fish and Wildlife for instream water rights in the amount needed to support recommended public uses. By regulation, if there would be an injury to an instream water right, OWRD would have to consent to that injury, after obtaining the consent of the state agency that initially requested that instream flow water right. In issuing the consent to impair an instream flow, OWRD can include "any conditions necessary to ensure that the change will . . . result in a continued net benefit to the resources consistent with the purposes of the instream water right."[33]

Oregon has developed the Deschutes Basin Mitigation Program to maintain scenic waterway and instream water right flows; accommodate growth through new ground water development and sustain exiting uses; and facilitate restoration of flows in Middle Deschutes River and tributaries.

The elements of the Deschutes Basin Mitigation Program include:

- requiring surface water mitigation for new groundwater permits for impacts on surface water but does not mitigate for impacts on groundwater resources and does not require mitigation for water right exempt wells;
- identifying tools for providing surface water mitigation;
- establishing a system of mitigation credits;
- providing for a 200 Cubic Feet per Second (CFS) allocation cap;
- providing for establishment of mitigation banks; and

[31] "Water Resources Laws Regarding Impairment and Mitigation of Regulatory Instream Flows in Other States Compared to Washington State"; Adam Gravley, Jenna Mandell-Rive, and Rachael Lipinski, Van Ness Feldman, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.
[32] Id.
[33] Id.

- requiring annual and five-year evaluations.

The Deschutes Basin Mitigation Program includes ways to provide mitigation, including completing a mitigation project or obtaining existing mitigation credits. Mitigation project types include: permanent mitigation projects (instream transfer; allocation of conserved water; and performance dependent mitigation, including storage releases and aquifer recharge) or temporary mitigation projects (time-limited instream transfer; and instream lease).[34]

Discussion of Criteria for Mitigation Sequencing.

Mitigation sequencing has been used previously in Washington, including in Twisp, Columbia River, Lake Roosevelt, Kittitas County, and Chelan County. When considering mitigation sequencing, one presentation discussed avoidance, minimization, and compensation and asked what criteria would be or could be needed for each after the *Foster* decision.[35]

What criteria exist for avoidance?

- How long do you have to look for water-for-water mitigation? Twisp is near/downstream of Canada and looked for decades.
- How much money do you have to spend? Twisp spent way above average market rate because there is no "upstream."
- Is it different for each geographic locality? Micro-climates in Yakima and northern counties are different.
- Is it different for public vs. private entities? Does criteria for a city or county differ from a developer or industry?
- Does the purpose of use of the project matter? e.g. is a fish hatchery the same as a farm or city or industry (e.g. bypass reaches)?
- Where do water markets fit?
- Where does condemnation fit?

What criteria exist for minimization?

- How much of the project must be changed? How does this affect the State Environmental Policy Act process?
- Do you rely on existing standards or do you have to go further? e.g. municipal conservation standard is 10 percent. Do you need to do more if this criteria is triggered?
- Do you have to sacrifice some elements of your project? e.g. lawn watering vs. indoor domestic use is a common bank choice.
- Do you have to phase your project to allow for more time to find the "perfect" mitigation? e.g. do you get 10 years of growth but not 20 years for the next increment of a municipal permit, or do you get it all?
- Is minimization quantitative, or qualitative, or consultation based? If fisheries co-managers are on board, where does that fit in?
- Does it matter if a basin has storage or not, or do you have to build it?

[34] "Deschutes Basin Mitigation Program"; Dwight French and Sarah Henderson, Oregon Water Resources Department, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 10, 2020.

[35] "Mitigation Sequencing"; Dan Haller, Aspect Consulting, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on September 28, 2018.

What criteria exist for compensation?

- Does "net" mean slightly better than neutral or are mitigation ratios used (e.g. 2:1 benefit)?
- Is fishery co-manager concurrence mandatory?
- Are in-time, in-kind, and in-place all equal?
- Can metrics be placed around in-time to make it streamlined? e.g. if mitigation occurs in times of scarcity and offsets demand in times of abundance, then it is "net
- environmental benefit." e.g. in most basins moving from summer to winter would be beneficial most of the time.
- If mitigation moves the hydrograph opposite of the push of climate change, is that sufficient?[36]

Mitigation Generally.

There are various water-for-water mitigation options, such as instream flow restoration, agricultural well mitigation, and domestic well mitigation, all of which could be impacted by the *Foster* decision. Implementing water-for-water mitigation takes a few steps. Once a water right is identified, a water right change application is filed with Ecology to change the purpose and place of use. Ecology issues a Report of Examination (ROE) that reviews extent and validity of the water right, evaluates impact on other water rights, identifies primary and secondary reach of instream water rights, and develops a Trust Water Right schedule that lays out the following:

- when water will be protectable instream and terms for managing the water for instream flow restoration;
- when/where water will be protected instream, terms for managing the water, and where mitigation will be available for agricultural well mitigation; or
- when/where water will be protected instream, terms for managing water, a process for distribution of water to mitigated uses, and where mitigation will be available for domestic well mitigation.

After the ROE and the Trust Water Right schedule are completed, the water right owner deeds water to Ecology.[37]

For agricultural well mitigation, simultaneously with water right change applications, a new permit application is filed for mitigated agricultural uses, including location, number, and size of wells or new surface diversion approach (water wheeling). New permits contain development schedule giving agricultural users time to develop their water use (underlying water right protected from relinquishment).

It is much more complex to develop an approach to how mitigation water will be used for domestic well mitigation because water is destined to mitigate much smaller uses over much larger area over a longer period, so not many places have done this.

Out-of-kind mitigation in water right applications are concepts borrowed from the ecological restoration and mitigation banking world, such as: (1) wetlands, (2) species conservation (including salmon) and (3) Natural Resources Damages restoration. Ecological restoration and mitigation banking is driven by

[36] "Mitigation Sequencing"; Dan Haller, Aspect Consulting, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on September 28, 2018.

[37] "Implementing and Monitoring Mitigation"; Peter Dykstra, Plauche & Carr, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on September 28, 2018.

collaboration between mitigation sponsor and an Interagency Review Team and defined by development of Prospectus, which lays out proposed restoration that will create ecological uplift on particular site. A Mitigation Banking Instrument documents the restoration construction plan and modeling of ecological uplift. It also describes the location and purpose of restoration as well as the location of eligible mitigation (service area), provides information on proposed ecological functions that will be improved, and describes financial assurances that will be provided by mitigation sponsor over the various phases of project. Out-of-kind mitigation requires long-term stewardship endowment.

Implementing and monitoring mitigation is complex. Designing, implementing, and monitoring mitigation takes time, financial resources, collaboration, and creativity. There are existing tools that can be used to help move this effort forward. Many of these tools will have to be adapted to the water resource challenges Washington is currently facing but there is a foundation.[38]

The Yakima Basin Water Marketing study builds off years of market-based water transaction activity in the Yakima Basin made possible by the need for more water for agriculture and the Yakima adjudication. The adjudication makes it somewhat easier to transfer water because more information is known about the water right that is being transferred. The study is designed to identify transactional costs and increase efficiency and market access. Key points to making a water marketing structure successful includes timeliness and transparency, confidence in the market structure, local collaboration, and a well-defined purpose. In a smart water market structure (an electronic format to match buyers and sellers), there is a need to create automation where possible to allow the market to create opportunities. There also needs to be a database of water rights in the smart market.[39]

In response to the experiences of the five pilot projects, Ecology discussed "lessons learned" at the May 24, 2022, Task Force meeting. One takeaway is that mitigation sequencing approach is problematic because avoiding impacts is not applicable, there is uncertainty around what is “reasonably attainable” (for example, what is considered “good enough” before moving between tiers), and there is not a clear “cost-benefit” calculation for approach.[40]

Another takeaway from the experiences of the pilot projects relates to out-of-kind mitigation. There is no consensus around which habitat model(s) are appropriate. These models are needed to determine “Net Ecological Benefits.” There is an added uncertainty on effectiveness and longevity of projects.[41]

A third takeaway from the experiences of the pilot project relates to the use of hydrological models. All models are abstractions, but they are not treated that way in case law. *Postema* and *Foster* elevate potential impacts based on a hydrological model to “demonstration of proof.” There is a need to address how to use and interpret model output that is within the model and measurement uncertainty.[42]

Ecology staff also discussed things to consider when moving forward with mitigation options when

[38] "Implementing and Monitoring Mitigation"; Peter Dykstra, Plauche & Carr, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on September 28, 2018.
[39] "Yakima Basin Water Marketing"; Justin Bezold, Lisa Pelly, Trout Unlimited; Urban Eberhart, Kittitas Reclamation District, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 10, 2020.
[40] "Update on Pilot Projects - Initial 'lessons learned'"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.
[41] Id.
[42] Id.

creating requirements for new permit decisions based on existing rights. Different situations would have to be fully addressed or thought through (e.g. ag user, municipal user, single right). Ecology does not generally evaluate existing "portfolio" of rights in their decisions and this would be a significant change to look at how existing rights are used and managed. Additionally, changes to statute (e.g. increased conservation) that relate to new decisions should apply to the new water rights issued in those decisions.[43]

From Ecology's experience, using out-of-kind mitigation as compensation for water right permit applications is extremely complex and subject to scrutiny because of uncertainty in measuring actual impacts, measuring benefits, and longevity of projects. The issues that have come up in the pilot projects have touched on many areas of water law, including trust water rights, municipal water rights, water right change statutes (including annual consumptive quantity), and reclaimed water and it is an immense challenge to make a "Foster Pilot" decision that doesn't interrelate with other parts of the water code.[44]

Washington is the only state of those discussed before the Task Force that specifically characterizes impairment of regulatory flows to include de minimis impairment. Washington is the only western prior appropriation state with regulatory flows that has affirmative law requiring that mitigation to offset impairment be in kind, in time, and in place. In some of the other states, like Colorado, the state water regulatory agency has discretion in determining whether to accept mitigation (even when that mitigation is not in kind, in time, and in place).[45]

Concepts and ideas from the chart of topics (from mitigation and infrastructure categories)

- Pilot project focus is too narrow. Questions should be (1) When is mitigation needed (less often), (2) If needed what does it look like?
- Compliance over time
- Paired with conservation strategy
- In time and in place standards
- Moving surface water to groundwater sources - timing/re-timing considerations
- Fish critical times
- Pilot project focus is too narrow. Questions should be: (1) When is mitigation needed (less often), (2) If needed what does it look like?
- Potential impacts to groundwater streamflow contributions and fish
- In-kind standard
- When in-kind ("water-for-water") mitigation is proposed, allow timing and place flexibility (out of time/out of place), provided appropriate criteria are met.
- Reservoir storage
- Aquifer recharge
- Reclaimed water
- Temperature
- Source-switch

[43] Id.

[44] "Update on Pilot Projects - Initial 'lessons learned'"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

[45] "Water Resources Laws Regarding Impairment and Mitigation of Regulatory Instream Flows in Other States Compared to Washington State"; Adam Gravley, Jenna Mandell-Rive, and Rachael Lipinski, Van Ness Feldman, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.

Legal concepts - Impairment; De Minimis Use; Injury and Impact; and OCPI

Impairment

Background

When seeking a new water right, a person must file an application with Ecology, who must consider a four-part test when deciding whether to issue the requested right: (1) whether water is available; (2) whether a beneficial use of water would be made; (3) whether granting the right would impair existing rights; and (4) whether the proposed use would detrimentally affect the public welfare. If an application passes this test, Ecology issues a permit which establishes a timetable for constructing the infrastructure to access the water and for putting water to beneficial use. When the conditions of the permit are satisfied, Ecology issues a water right certificate.

There is no explicit definition of water right impairment in the water code (RCW 90.03) or groundwater statute (RCW 90.44). However, there are two impairment standards in other parts of the code, one for municipal reclaimed water treatment facilities (RCW 90.46.130(1)) and one for food processor and industrial reuse treatment facilities (RCW 90.46.130(2)):

> "Except as provided in subsection (2) of this section, facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right." (RCW 90.46.130(1))
>
> "Agricultural water use of agricultural industrial process water and use of industrial reuse water under this chapter shall not impair existing water rights within the water source that is the source of supply for the agricultural processing plant or the industrial processing and, if the water source is surface water, the existing water rights are downstream from the agricultural processing plant's discharge points existing on July 22, 2001, or from the industrial processing's discharge points existing on June 13, 2002." (RCW 90.46.130(2))

De Minimis

Background

Barron's Law Dictionary defines "de minimis" as: "insignificant; minute, frivolous. Something or some act which is 'de minimis' in interest is one which does not rise to a level of sufficient importance to be dealt with judicially."[46] In *Postema*, the Court concluded that "RCW 90.03.290 does not, however, differentiate between impairment of existing rights based on whether the impairment is de minimis or significant. If withdrawal would impair existing rights, the statute provides the application must be denied." As noted in *Foster*, "[o]ur cases have consistently recognized that the prior appropriation doctrine does not permit even de minimis impairments of senior water rights. Therefore, we reject the argument that ecological improvements can 'mitigate' the injury when a junior water right holder impairs a senior water right."

Concepts and ideas discussed by presenters at work sessions

Impairment and de minimis standards in Washington.

The *Postema* decision was an appeal of a batch denial of applications to withdraw groundwater in hydraulic continuity with closed surface water. The Court held that instream flow rights are rights subject to the same protection as other water rights. The Court also held that no impairment to existing

[46] *Postema v. PCHB*, dissent by Justice Sanders.

rights is permissible, even de minimis impairment and that "any effect on the flow or level of the surface water" in closed streams would mean impairment.[47]

The Court's ruling in *Foster* made it clear that water right mitigation must address flow impairment, even de minimis impairment, both in-time, and in-place. For new groundwater uses, mitigating all flow impairment from all affected waterbodies can literally be impossible. A new groundwater withdrawal may have predicted (modeled) impacts that extend out many miles from the proposed new well. Under the *Foster* decision, the applicant must mitigate flow impacts in multiple, potentially dozens of, smaller tributary streams. Often, applicants find that flow mitigation through acquisition and retiring of a senior water right is not available from these smaller streams.[48]

The *Foster* decision has set up a "perfect" mitigation requirement for any, even de minimis, depletions of regulatory minimum instream flows. For example, a water right applicant must supply mitigation that is in kind (wet water mitigation—and not other types of mitigation, like habitat improvements), in time (at the same time as the modeled or actual impairment), and in place (in the same location within the water body).[49]

The Reclaimed Water Use statute, RCW 90.46.130, provides that "facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right…." Ecology supports reclamation and reuse/recharge of water to promote the most efficient and effective use of state water resources. Reclamation and reuse/recharge can provide great benefits to the environment, fish and wildlife, and communities. In some situations, legal constraints surrounding impairment to instream flows have hampered projects.[50]

The Washington Administrative Code (WAC 173-500-050) defines consumptive and non-consumptive use as follows:

- "Consumptive use" means use of water whereby there is a diminishment of the water source.
- "Nonconsumptive use" is a type of water use where wither there is no diversion from a source body, or where there is no diminishment of the source.[51]

<u>Impairment and De Minimis Standards in Other States</u>.

California.

In California, new water rights and changes of use of existing water rights cannot unreasonably affect or substantially injure any senior legal user of water (referred to as the "no injury rule"). There is no clearly identifiable statute, regulation, or case law that provides a standard for mitigating impacts to minimum

[47] "*Foster* Decision Refresher"; Dave Christensen, Department of Ecology; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

[48] "How the *Foster* Decision Affects Our Work"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 10, 2020.

[49] "Water Resources Laws Regarding Impairment and Mitigation of Regulatory Instream Flows in Other States Compared to Washington State"; Adam Gravley, Jenna Mandell-Rive, and Rachael Lipinski, Van Ness Feldman, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.

[50] "Reclaimed water reuse/recharge and the Water Code"; Kasey Cykler, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 2, 2021.

[51] "Return flow and water conservation in agricultural systems"; G. Thomas Tebb, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 2, 2021.

instream flows.[52]

Colorado.
In Colorado, the state water regulatory agency may accept impairment to an instream flow if:

- through mitigation, it can continue to preserve or improve the natural environment to a reasonable degree notwithstanding the injury; or
- it is a de minimis impact to an instream flow (i.e., has a 1 percent or less depletive effect).[53]

Idaho.
The minimum stream flow statute allows the Idaho Water Resource Board (IWRB) to file for unappropriated water to be used for instream flows and allows any person to petition the IWRB to file for a minimum flow right. Minimum instream flows must be approved by the Legislature. There is no clearly identifiable statute, regulation, or case law that provides a specific standard for impairment of instream flows. New water rights and changes of use of existing water rights cannot reduce the quantity of water under existing rights and must be in the public interest.[54]

Kansas.
In Kansas, the minimum desirable streamflow law allows the state legislature to set minimum flows for specific waterbodies. There is no clearly identifiable statute, regulation, or case law that provides a specific impairment standard for instream flows. New water rights or changes in use to existing water rights cannot impair an existing right or adversely affect the public interest.[55]

Montana.
State law in Montana recognizes that the creation of an instream flow may impair existing water rights and provides a time-limited remedy. The Department of Natural Resources and Conservation (DNRC) may modify an appropriated water reservation for instream flows if all or part of the reservation is not required for its purpose and the need for reallocation outweighs the need shown by the original reservation. Reallocations cannot occur on any stream or river more than once every five years. Priority of appropriation does not include the right to prevent changes by later appropriators if the prior appropriator can reasonably exercise the water right under the changed conditions. DNRC may modify or revoke a change in use to protect instream flows, either held in fee simple or leased by FWP, for up to 10 years after approving the change, if a senior water rights holder submits new evidence not available at the time the change was approved that proves that the senior rights holder's water right is adversely affected.[56]

Nevada.
The State Engineer is authorized to grant a water right application to protect instream flow rates, provided the appropriation does not interfere with senior water rights. There is no clear distinction

[52] "Water Resources Laws Regarding Impairment and Mitigation of Regulatory Instream Flows in Other States Compared to Washington State"; Adam Gravley, Jenna Mandell-Rive, and Rachael Lipinski, Van Ness Feldman, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.
[53] Id.
[54] "Water Resources Laws Regarding Impairment and Mitigation of Regulatory Instream Flows in Other States Compared to Washington State"; Adam Gravley, Jenna Mandell-Rive, and Rachael Lipinski, Van Ness Feldman, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.
[55] Id.
[56] Id.

between water rights for instream flows versus those for other beneficial uses requiring a diversion. There is no clearly identifiable statute, regulation, or case law that provides a specific standard for impairment of instream flows.[57]

Oregon.
In Oregon, the state water agency can approve a transfer that would injure an instream flow if (1) that instream flow was created through a request from a state agency (2) the state agency consents to the injury. In issuing the consent, the state agency can include conditions necessary to ensure a continued net benefit to resources consistent with the purposes of the instream water right. New rights or changes in use cannot reduce surface water flows within a scenic waterway in excess of a combined cumulative total of one percent of the average daily flow or one cubic foot per second, whichever is less.[58]

Washington.
Washington is the only state of those discussed before the Task Force that specifically characterizes impairment of regulatory flows to include de minimis impairment. Washington is the only western prior appropriation state with regulatory flows that has affirmative law requiring that mitigation to offset impairment be in kind, in time, and in place. In some of the other states, like Colorado, the state water regulatory agency has discretion in determining whether to accept mitigation (even when that mitigation is not in kind, in time, and in place).[59]

Injury and Impact

Background

In *Postema*, the primary issue concerned the impact of groundwater withdrawals on surface waters having minimum flow requirements set by rule which are unmet a substantial part of the year, and on surface waters closed to further appropriation. The Court held that "[t]he statutes plainly provide that minimum flows, once established by rule, are appropriations which cannot be impaired by subsequent withdrawals of groundwater in hydraulic continuity with the surface waters subject to the minimum flows." The Court further held that "RCW 90.03.290 does not, however, differentiate between impairment of existing rights based on whether the impairment is de minimis or significant. If withdrawal would impair existing rights, the statute provides the application must be denied."

In *Foster*, the Court concluded that:

> "[T]he mitigation plan does not mitigate the injury that occurs when a junior water right holder impairs a senior water right. The water code, including the statutory exception, is concerned with the legal injury caused by impairment of senior water rights—water law does not turn on notions of "ecological" injury. Our cases have consistently recognized that the prior appropriation doctrine does not permit even de minimis impairments of senior water rights. . . Therefore we reject the argument that ecological improvements can "mitigate" the injury when a junior water right holder impairs a senior water right."

[57] Id.
[58] Id.
[59] "Water Resources Laws Regarding Impairment and Mitigation of Regulatory Instream Flows in Other States Compared to Washington State"; Adam Gravley, Jenna Mandell-Rive, and Rachael Lipinski, Van Ness Feldman, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2022.

Concepts and ideas discussed by presenters at work sessions

In the *Foster* decision, the Court held that there is a "legal injury" to adopted instream flows when a new appropriation would impact flows below minimum levels and that de minimis impairment meets this threshold. The Court rejected use of out-of-kind mitigation even if it provides "ecological benefit" and held that OCPI cannot be invoked for any permanent impairment of adopted instream flows.[60]

Colorado case law recognizes that pumping tributary ground water impacts surface water "[w]hen that impact occurs in an over-appropriated basin the depletion to the surface water is legally presumed to injure surface water rights, Colorado case law and statutory law require that pumping depletion be replaced by a substitute supply through a plan for augmentation." Colorado has been considering the issues that arise between a groundwater diversion and its impact on surface water since 1974 as part of the South Platte Rules, "[b]ecause of the time lag between a ground water diversion and its impact on surface water users, conditions may arise such that a potential injury to surface diverts (sic) may not actually occur, but the burden of assuring that there will be no injury to the senior appropriator must fall on the junior appropriator." [61]

When considering surface water depletion in Colorado, there is initially a determination of the effect of:

- time: when does the depletive effect occur at the stream;
- location: where on the stream, relative to vested water rights, does the depletive effect occur; and
- amount: for the time increment, at the location, what is the volume (or rate) of the depletion.[62]

In Idaho, when approving water right permits, licenses, transfers, exchanges, rentals, curtailment calls, and mitigation plans, approvals cannot cause injury and impact does not equate to injury. Idaho has defined material injury in rule (IDAPA 37.03.11.42). Mitigation is required to guard against or mitigate for injury, it must be in kind, in time, and in location, and mitigation may be secured through a water right transfer, exchange, or rental.[63]

Idaho uses models to evaluate impacts attributable to water use changes and mitigation is required for transfers where:

- modeled depletions in any reach increase by more than 2/acre feet per trimester;
- modeled depletions in any reach increase by more than 10 percent, and
- modeled depletions in any reach are greater than 10 percent of the sum of all depletions modeled in all reaches.[64]

The experiences of the pilot projects have led to a few takeaways, including that the mitigation sequencing approach is problematic and avoiding impacts is not applicable. Additionally, there is

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[60] "*Foster* Decision Refresher"; Dave Christensen, Department of Ecology; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

[61] "Surface Water and Ground Water Interaction - Colorado Ground Water Administration"; Kevin Rein, Colorado Division of Water Resources, presentation delivered to the Joint Legislative Committee on Water Resource Mitigation on November 10, 2020.

[62] Id.

[63] "Water Use Mitigation and Water Banking in Idaho"; Remington Buyer, Idaho Water Resources Board, presentation delivered to the Joint Legislative Task Force on November 10, 2020.

[64] Id.

uncertainty around what is “reasonably attainable” and what is “good enough” before moving between tiers.[65]

Overriding Consideration of Public Interest (OCPI)

Background

Under RCW 90.54.020(3)(a), withdrawals of water that conflict with minimum instream flows may be authorized “only in those situations where it is clear that overriding considerations of the public interest will be served.”

The *Swinomish Indian Tribal Community v. Department of Ecology*, 178 Wn.2d 571, 311 P.3d 6 (2013) (*Swinomish*) decision involved the validity of an amended rule from Ecology to reserve water from the Skagit River system for future year-round out-of-stream uses, even though in times of low stream flows these uses would impair established minimum instream flows necessary for fish, wildlife, recreation, navigation, scenic and aesthetic values. Ecology relied on RCW 90.54.020(3)(a) for authority to make the reservations of water despite the existing minimum flows, allowing impairment of stream base flows when OCPI is served. The Court held that Ecology "erroneously interpreted the statutory exception as broad authority to reallocate water for new beneficial uses when the requirements for appropriating water for these uses otherwise cannot be met. The exception is very narrow, however, and requires extraordinary circumstances before the minimum flow water right can be impaired."

After noting the similarities to the *Swinomish* decision, the Court in *Foster* held that Ecology had exceeded its authority in granting the City of Yelm's permit under the OCPI exception, finding that: (1) the OCPI exception only permits temporary impairment of minimum flows; (2) municipal water needs do not qualify as "exceptional circumstances" needed to apply the OCPI exception; and (3) a mitigation plan may not use ecological benefit to correct impairment to a senior water right.

Concepts and ideas discussed by presenters at work sessions

When approving Yelm's permit application, Ecology relied on OCPI for withdrawals that would conflict with base flows “shall be authorized only in those situations where it is clear that overriding consideration of the public interest will be served." RCW 90.54.020(3)(a)[66]

The PCHB considered 12 factors when deciding to uphold the Yelm Permit:

1. OCPI was used when water is for a public purpose.
2. Every feasible in-kind mitigation option was exhausted.
3. All impacts were “fully mitigated and trackable over time.”
4. Out-of-kind benefits to fish and stream habitat were “significant and clearly established through sound science.”
5. “Permanent and net ecological benefit to affected streams, more than sufficient to offset minor depletion of water.”
6. A conservative hydrologic model was used.
7. The model used was external, professional, and peer reviewed.
8. There was a small depletion with zero or minimal impact to water resources.

[65] "Update on Pilot Projects - Initial 'lessons learned'"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

[66] "*Foster* (City of Yelm) Mitigated Water Permits"; Robin McPherson, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on June 22, 2018.

9. Water added during fish-critical times.
10. The permit application had stakeholder support.
11. The permit application was consistent with watershed plans.
12. There was conservation and use of reclaimed water.

The Court in *Foster* did not dispute the "12 factors," acknowledged the "net ecological benefit," but held that is not enough for OCPI. The Court concluded that permanent water use cannot interfere with base flows . . . no matter how O-the CPI.[67]

The *Foster* decision eliminates the use of OCPI as a balancing tool for any permanent appropriation of water. This means that OCPI can only be used when issuing temporary water rights. Since Ecology issues temporary water rights infrequently, this tool now has extremely limited applicability.[68]

In the *Foster* decision, the Court held that there is a "legal injury" to adopted instream flows when a new appropriation would impact flows below minimum levels and that de minimis impairment meets this threshold. The Court rejected use of out-of-kind mitigation even if it provides "ecological benefit" and held that OCPI cannot be invoked for any permanent impairment of adopted instream flows.[69]

Concepts and ideas from the chart of topics (from impairment, injury, and impact and public interest/cost benefit categories)

Impairment, injury, and impact:

- Cumulative use/cap on total impact
- De minimis use
- Accounting for impact and impairment
- Explore de minimis "thresholds" for finding impairment to minimum instream flows, or a pooled cumulative impact buffer similar to other states such as CO and OR.

Public interest/cost benefit:

- When to be considered
- Legislative clarification or revision of the OCPI exemption.

Other Issues Discussed - Modeling, Accountability, Tribal Treaty Rights, and Climate Impacts

Modeling

Concepts and ideas discussed by presenters at work sessions

Groundwater Modeling, Generally.

The steps to building a numerical groundwater flow model are:

1. map the hydrogeologic framework;
2. create model grid, boundaries, features;
3. specify water going into the model;
4. specify groundwater withdrawals; amd

[67] Id.

[68] "How the *Foster* Decision Affects Our Work"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on November 10, 2020.

[69] "*Foster* Decision Refresher"; Dave Christensen, Department of Ecology; presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

5. calibrate the model.[70]

There are limitations and benefits of models. One of the biggest limitations to models is that they are simplifications of reality, but they are useful. Some hydrology models might be only a little wrong, for example the cause and effect may be correct, but the size of the effect is less certain, or the aquifer system behavior is correct but the many local-scale details and variations of the system are not captured. The models are useful because simplifications of reality help us explain and understand all the interactions between what we have measured and observed and provide an idea of how complicated systems might respond to future conditions (more pumping, warmer climate, less recharge).[71]

The most significant variation in water levels and groundwater discharge to streams is due to variations in recharge, year to year and even cumulative changes due to pumping are much less than changes due to year-to-year variation in recharge. Pumping is often a relatively small component of a basin's groundwater budget, but models show it can still have significant effects on seasonal streamflows in small basins. Modest increases in shallow groundwater discharge to streams is not uncommon if pumping is from deeper aquifers, and any increase in pumping will be accompanied by an equivalent decrease in groundwater storage or discharge to somewhere (often Puget Sound).[72]

Numerical models are perhaps the best, but not the only, tool to evaluate mitigation strategies. Analytical models are limited to analyses of idealized conditions where complexities of a real groundwater system cannot be accounted for, and numerical models provide the most robust approach for determining rates, locations, and timing of streamflow depletion by wells at the WRIA scale.[73]

The USGS has been developing the Southeast Puget Sound Groundwater Flow Model (SES) to characterize the groundwater-flow system, look at groundwater levels and flow directions, develop a water budget (inflows and outflows), and integrate the information into a numerical groundwater-flow model. The SES Study Area is approximately 885 square miles, with a population of 1.1 million, bounded by Puget Sound, Green River, Cascade foothills and Nisqually River. The SES is also developing scenarios consisting of pumping increases compared to the base model, two of which are being used by two of the pilot projects (Spanaway Water Company and Sumner):

- 3b – All public supply wells in model.
- 3c – All self-supply wells in model.
- 3d – Supply wells for the Spanaway Water Company.
- 3e – Supply wells for Sumner.[74]

The model was calibrated to groundwater levels and stream baseflow and simulates the effects of pumping and drought on stream baseflow and groundwater levels. Although a model may provide the best answers available, there are also limitations such as error and uncertainty because of approximations, assumptions, and simplifications. There is also uncertainty of input and calibration data (e.g., stratigraphic framework, recharge, water use, and baseflow) and the time scale may not represent

[70] "Groundwater Modeling to Inform Water Resource Mitigation"; Rick Dinicola, U.S. Geological Survey, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on September 28, 2018.
[71] Id.
[72] Id.
[73] Id.
[74] "Southeast Puget Sound (SES) Groundwater Flow Model"; Wendy Welch and Andy Long, U.S. Geological Survey, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

full range of actual hydrologic variability. Additionally, a regional model has limitations for simulating local-scale processes related to grid resolution and calibration detail at local scales.[75]

Groundwater modeling in Idaho.

Idaho uses models to evaluate impacts attributable to water use changes and mitigation is required for transfers where:

- modeled depletions in any reach increase by more than 2/acre feet per trimester;
- modeled depletions in any reach increase by more than 10 percent; and
- modeled depletions in any reach are greater than 10 percent of the sum of all depletions modeled in all reaches.[76]

Groundwater Modeling in the Pilot Projects.

The pilot projects have found that hydrogeologic models can simulate impacts that extend far beyond the ability to physically measure those impacts, adding to the overall challenge of mitigating.[77]

One takeaway from the experiences of the pilot project relates to the use of hydrological models. All models are abstractions, but they are not treated that way in case law. *Postema* and *Foster* elevate potential impacts based on a hydrological model to "demonstration of proof". There is a need to address how to use and interpret model output that is within the model and measurement uncertainty.[78]

Concepts and ideas from the chart of topics

- Accuracy concerns
- Can be either up or down
- Area of model uncertainty: Modeled results below the model error threshold should not be construed as proof of impact or impairment.

Accountability

Concepts and ideas discussed by presenters at work sessions

Permanent transactions for instream flow restoration typically involve removal of water diversion and delivery infrastructure, unless only a portion of the water right is part of the transaction. There needs to be an easement for monitoring granted to instream flow restoration proponent to allow access to monitor land on annual basis to ensure land is fallowed and infrastructure is not being used. Stream gauges are used for monitoring water instream, typically existing stream gauges. Where not available, new gauges are installed. Instream flow restoration is done in partnership with Ecology, the WDFW, tribes, conservation districts and others needed to monitor instream flow and enforce against out-of-priority withdrawal. Instream flow restoration works well in basins with lots of collaboration and good knowledge of water rights.[79]

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[75] Id.

[76] "Water Use Mitigation and Water Banking in Idaho"; Remington Buyer, Idaho Water Resources Board, presentation delivered to the Joint Legislative Task Force on November 10, 2020.

[77] "Pilot Project Overview and Status Report"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on September 10, 2019.

[78] "Update on Pilot Projects - Initial 'lessons learned'"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

[79] "Implementing and Monitoring Mitigation"; Peter Dykstra, Plauche & Carr, LLP, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on September 28, 2018.

Permanent transactions for agriculture well mitigation typically involve removal of historic surface water diversion and delivery infrastructure and building of new infrastructure for agricultural use. Stream gauges are used for monitoring water left instream in critical reach, typically existing stream gauges. Where not available, new gauges are installed. Agriculture well mitigation is done in partnership with Ecology, the WDFW, tribes, conservation districts and others needed to monitor instream flow. Agriculture well mitigation works well in basins with lots of collaboration and good knowledge of water rights. Metering of new wells (or other new diversion method) is typically a component of mitigation strategy to ensure that ongoing water use is within limits of mitigating water right and to help agricultural users provide evidence of development of their well use.[80]

For domestic well mitigation, it is critical to monitor the instream flow component of the mitigation program as well as the domestic use component of the program. Instream flow monitoring is like the monitoring done for instream flow restoration and agricultural well mitigation. Metering of new wells is typically a component of mitigation strategy to ensure that ongoing water use is within limits of mitigating water right and to help the counties and water users provide evidence of development of their well use.[81]

One takeaway from the experiences of the pilot projects relates to out-of-kind mitigation. There is no consensus around which habitat model(s) are appropriate. These models are needed to determine "Net Ecological Benefits." There is an added uncertainty on effectiveness and longevity of projects.[82]

Concepts and ideas from the chart of topics

- Metering, monitoring, enforcement
- Public notice
- Right to appeal decisions

Tribal Treaty Rights

Concepts and ideas discussed by presenters at work sessions

Tribal reserved rights may exist on or off the reservation, apply to surface and groundwater, are regulated under federal law, are not lost through non-use, and may be recognized by a treaty or an executive order. Two seminal cases are the bases for these rights:

- *Winters v. United States* (1908) - involved setting aside reservation land implicitly included water right for agriculture. Canons of construction were used in the *Winters* analysis. *Winters* applies where treaty or executive order recognizes the right to engage in a new use (e.g. agriculture for non-farming tribe), priority date is the date of reservation. *Winters* Rights - look to purposes of the reservation of land; construed very broadly.
- *Winans v. United States* (1905) - treaty fishing rights under Stevens Treaty were at issue, private property owners had to allow native fishers to cross their land to access usual and accustomed areas, private property owners could not take all the fish running through a stream by use of a state-licensed fish wheel. *Winans* applies where treaty or executive order recognizes pre-existing uses, rights have a priority date of time immemorial.[83]

[80] Id.

[81] Id.

[82] "Update on Pilot Projects - Initial 'lessons learned'"; Dave Christensen, Department of Ecology, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.

[83] "Tribal Reserved Rights"; Ann Tweedy, Muckleshoot Indian Tribe, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on December 14, 2018.

The Treaty right to fish in usual and accustomed areas was recognized by the 1974 *Boldt* decision and affirmed in the *Culverts* case in 2018. Tribes also have instream flow rights for fishing, hunting, and gathering in an amount necessary to supply the tribe with a moderate living (*U.S. v. Adair* (1983)), which should be read to have a water quality component consistent with the *Culverts* case. Similar rights exist under the treaties for water to support hunting and gathering. Non-treaty tribes may have such rights on the reservation pursuant to the executive order creating reservation.[84]

Additionally, tribes have a reservation of water for farming purposes on the amount of land physically capable of sustained irrigation and irrigable at a reasonable cost.[85]

Most tribes view the state instream flow rules as set too low to adequately protect fisheries. Yet these state law rules provide a modicum of protection and sometimes enough comfort to allow a tribe to put off seeking a quantification of their rights through the courts.[86]

Concepts and ideas from the chart of topics

- Process to ensure protection of these rights

Climate impacts

Concepts and ideas discussed by presenters at work sessions

Projected changes are much larger than what have been seen so far and this will worsen existing impacts and bring on new ones that haven't been detected in the past. In the 2050s, Washington state is projected to see warming of +5.8°F (3.1-8.5°F). Washington's primary mechanism for storing water in the form of mountain snowpack, which is sensitive to warming. Declining snowpack is the major driver of water supply decline; however other factors exacerbate impacts, such as receding glaciers, wildfire, and decreases in summer precipitation.[87]

Warming shifts streamflows and the largest changes in low flows are projected west of the Cascades. Impacts depend on magnitude of changes and management flexibility. In Yakima, water curtailments for junior users are projected to increase from 14 percent to 68 percent by the 2080s. Statewide there will be increased summer hydropower demand due to air conditioning use and population growth. With less water, water will be warmer and stream temperatures, on average, are projected to increase by +4.0 degrees Fahrenheit to +4.5 degrees Fahrenheit by the 2080s. The number of river miles exceeding thermal tolerances are projected to increase by under 1,000 miles for salmon, and under 2,800 miles for char.[88]

The Climate Impacts Group at the University of Washington concludes that acting now will reduce harm in the future and today's actions shape tomorrow's risks through choices about energy use and fuel type and that today's actions shape tomorrow's risks through deciding whether to plan & manage our communities, economy & ecosystems for the climate of the future or the climate of the past.[89]

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[84] Id.
[85] Id.
[86] Id.
[87] "Climate Change Impacts on Streamflow and Water Supply"; Guillaume Mauger, Climate Impacts Group, University of Washington, presentation delivered to the Joint Legislative Task Force on Water Resource Mitigation on May 24, 2022.
[88] Id.
[89] Id.

Concepts and ideas from the chart of topics

- Shift in timing of flows
- Increased demand for water as temperature rises
- Increased water temperature as a result of warmer air temperature

Recommendations

The following list was compiled from letters and emails from Task Force members or Tribes. The letters and one email containing recommendations can be found in the Appendices of this report.

1. Conservation

a. Association of WA Cities - The Legislature should consider potential new conservation standards for water systems served by water rights accessed utilizing mitigation such as requiring WDOH certification that a municipal purveyor is in compliance with the WDOH water conservation statute and rule as a precondition to using the sequenced mitigation standard.
b. WDFW - Washington State should seek ways to incentivize the reuse of wastewater where it is being discharged into the marine environment.
c. Muckleshoot Indian Tribe - The Legislative Report should recommend that legislation be developed to strengthen conservation targets and goals among all customer sectors, especially high consumption users, require water providers to reduce leakage to below 5% (real water leakage reductions, not accounting errors), and make some or all of these measures mandatory. The 2023 session is likely too soon to develop this legislation but any future planning process must involve federally recognized Indian Tribes.

2. Source Switch

a. Trout Unlimited would urge the Joint Task Force to support additional conversations led by the Department of Ecology (Ecology) on "source switches" to determine if there is a pathway to allow for broader use of these types of transfers. While we have heard from some cities that this option provides little relief, we believe this approach has the potential to offer an additional option for public water systems and others for approving transfers from surface water to ground water and potentially other sources like aquifer recharge. We are currently working with a city in Central WA who is looking to move their tributary diversions to wells downstream in an effort to enhance instream flows in the tributary and remove a diversion from the stream while allowing for ongoing use and growth for its water supply.
b. Sierra Club - The Department of Ecology should help facilitate continued discussion among stakeholders on the subject of "source switch" to see if agreement can be reached on a streamlined approach for approving transfers from surface water to ground water.
c. Muckleshoot Indian Tribe - The definition of this term [source switch] is needed. The comments here are related to changing a source from a surface water to groundwater. More discussion on this topic could be fruitful as long as instream flows rights are not impaired and WDFW, WDOE, and federally recognized Indian Tribes agree with the outcome.

3. Impacts and impairment

a. WA Water Utilities Council and Association of WA Cities - The Legislature should clarify and codify two key holdings of Postema, as follows: (1) hydraulic continuity between groundwater and a surface water source that is either closed or is not meeting instream flows, is not, in and

of itself impairment; (2) for Ecology to deny an application for groundwater where there is connection between groundwater and a surface water source that is either closed or not meeting flows, there must be an adverse effect on instream resources.

b. Tulalip [Tribes] recommends leaving the definitions of impairment as they currently stand. Current laws, policies and rules encode protection of stream from further impairment by ground water withdrawals.
c. Muckleshoot Indian Tribe - Any legislation to change the results and findings of the *Postema* Decision are opposed by the Tribe. The Legislature should not engage in furthering weakening of case law that protects minimum instream flows for salmon and threatens tribal treaty rights. The Supreme Court properly ruled that impairment was a factual question and disagreed that hydraulic continuity equates to impairment as the PCHB Court did and some Task Force members, and Ecology, have stated or implied. Also, the Court properly found that Ecology can use the best science available to determine impairment. Perhaps the Court should also have found that best professional judgement and common sense be used when evaluating model results – then discussions about "very small impacts shown on far away streams", which are known to qualified professional MODFLOW modelers as "noise" or "not real" could have been averted.

4. De minimis

a. WA Water Utilities Council - Establish a collaborative state-local program so that impacts that are either de minimis, not adverse, or that in combination with existing conditions or other applications could have cumulative adverse impacts, can be mitigated at the watershed or sub-watershed level. The Legislature supported use of public funds (Hirst decision fix in Sec. 304 in ESSB 6091) to enable rural growth, and support for water resource mitigation is essential for GMA's primary purpose of enabling urban growth.
b. WA Water Utilities Council and Association of WA Cities - The Legislature should also recognize, as other Western states have done, that certain de minimis or insignificant effects of groundwater appropriations do not constitute an impairment of regulatory instream flow water rights or stream/lake closures. The percentage of insignificance (or percentage of natural variation) should be established for each stream segment and lake based on existing levels rather than for each application, to prevent multiple cumulative impacts from exceeding the level of insignificance.
c. The Tulalip Tribes find that stream flow and aquatic ecology are already impacted by over century of land use, water resources appropriations and alteration of the landscape. Water resource laws and policies are protecting the current and must altered status of stream flows and ecosystem health for the people of the State. Alteration of the regulatory system that governs protection and allocation of water resources acknowledges neither the impacts already enacted on the waters of the State nor the treaty reserved rights of Tribes.
d. Muckleshoot Indian Tribe - Any weakening of the de minimis standard of impairment is also opposed; which should be of concern to any senior water right holder. Remember, the Foster Decision stated, "our State's long-established 'prior appropriation' and 'first in time, first in right' approach to water law, … does not permit any impairment, even a de minimis impairment, of a senior water right."

5. Mitigation and net ecological benefit

a. WA Water Utilities Council - The NEB process was successfully demonstrated in the Yelm Pilot Project that was approved but should be considered for simplification by the Legislature so that mitigation sequencing is more practically achievable.
b. WA Water Utilities Council - Allow water right applicants to use mitigation sequencing, which is used in numerous other environmental permitting areas, that follows the accepted sequence of (a) avoiding impacts; (b) minimizing impacts; and then (c) compensating for impacts with both in-kind and out-of-kind mitigation.
c. WA Water Utilities Council - Create a transparent technical review board of qualified members that can be used to review complicated water right applications and mitigation plans.
d. Association of WA Cities - Recommend Legislature provide authority to Ecology to issue water rights decisions based on mitigation for expected impacts which should include out of time, out of place, and out of kind flexibility.
e. Association of WA Cities - Recommend Legislature provide authority to Ecology to issue water rights decisions based on mitigation for expected impacts which should include out of time and out of place flexibility.
f. Trout Unlimited agrees with WPUDA's recommendation for establishing a state program to help with funding to support achievement of mitigation requirements for projects where public entities are mitigating or supplying water through public systems. Projects could include drought relief pumping storage and aquifer storage, as appropriate. The funding supported by the Streamflow Restoration Program has allowed for creativity and flexibility in developing projects that enhance flows and habitat in many basins in our state, and we need to expand the range of project approaches that would achieve those important outcomes.
g. Mitigation for a water right should be in place and in time as confirmed in the Foster Decision. Tulalip Tribes can be inconvenienced by the rigorous requirement to mitigate; however, it is in the best interest of the environment and protection of the waters of the State to determine and mitigate water losses by reach. A net ecological benefit approach fails to address the concentration of an impact in one stream reach or geographic area and often does not produce water as mitigation.
h. Muckleshoot Indian Tribe - These are complex and factual issues that should not addressed at the Legislative level, but discussed among state resources agencies and federally-recognized tribes.

6. Overriding Consideration of Public Interest

a. WA Water Utilities Council - The Legislature should adopt objective standards in the water code, not subjective tests like the OCPI exception that has proven too unwieldy to have any reliable function for either Ecology or water right applicants.
b. WA Water Utilities Council - The Legislature should consider replacing the word "withdrawal" with "appropriation" in the final sentence of RCW 90.54.020(3)(a)). Per Foster v. Yelm, this would remove the Court's determination that OCPI only can be used for "temporary" withdrawals.
c. Association of WA Cities - The Legislature should replace the word "withdrawal" with "appropriation" in the final sentence of RCW 90.54.020(3)(a)). Per Foster v. Yelm, this would remove the Court's determination that OCPI only can be used for "temporary" withdrawals. However, this should not be the only action the state takes to provide tools for approvable water rights applications.
d. Trout Unlimited supports engaging in a thoughtful, collaborative effort to clarify and expanding the use of OCPI to allow for the implementation of permanent projects that can show

enhancement of instream flows at critical times for fish while allowing for out-of-stream uses that might otherwise be prohibited.

e. Tulalip [Tribes] sees no room for adjustment for the OCPI. The intention of the policy, which has been confirmed by the judiciary in multiple cases, is to provide a 'short term' and 'emergency' supply of water. Changing words in the policy from 'withdrawal' to 'appropriation' is not an appropriate approach to securing a water supply for any purpose of use.
f. Sierra Club - Allowing Permanent Projects to Qualify for OCPI Exemption. The Foster court ruled that only temporary projects can qualify for OCPI. We support expanding the exemption to allow for permanent projects, such as siting of a hospital, to be considered. Having said that, we do not support expanding the OCPI exemption beyond that change.
g. The [Muckleshoot Indian] Tribe believes that the Foster Court made the correct finding that OCPI is not an alternative to the traditional permitting process and that short term, temporary uses only should fall under that umbrella.

7. Modeling

a. WA Water Utilities Council - Create objective standards for the creation and application of computer groundwater models, including limiting groundwater modeled impacts to areas within the watershed or Water Resource Inventory Area, and not basing permit decisions on impacts that are outside a model's margin of error.
b. WA Water Utilities Council - The Legislature should consider directing Ecology to utilize simplified mathematical models rather than regional models for determining impairment where the applicant elects to use the Legislature's mitigation sequencing method and NEB determination. NEB determinations at the end of the sequencing process can provide the basin-wide protection that eliminates the need for rigorous computer modelling.
c. Association of WA Cities - The Legislature should direct the Department of Ecology to undertake rulemaking to establish a process on how to determine the margin of error for hydrological models. Clarify and codify that modeled impacts within the error margin of models shall not be considered impairment.
d. There was significant discussion at several of the Joint Task Force meetings on the lack of clarity, error thresholds and uncertainty of groundwater modeling and other mechanisms used to help with appropriate mitigation. Trout Unlimited would recommend that Ecology and the Department of Fish and Wildlife (WDFW) convene a group of technical experts to review existing information, objective standards and other techniques that could be used to help define what models are the best options. Once there are agreed upon standards for various WRIA's, we would encourage Ecology to pursue rulemaking to provide clarity to project proponents.
e. Tulalip Tribes - This is a technical issue that likely cannot be solved thorough legislation, as each water resources model is tailored to a specific water appropriation. Models error is fairly well managed within the modeling process. Typically, models are set to estimate water resources impairments using first principles and if available, data taken from the location where a water right has been requested. Model error allows for a model user and other participants, governmental agencies, Tribes and stakeholders, to find a band of tolerance for 'unknowns'. Typically, these bands of unknowns are agreed to in advance and don't necessarily benefit the applicant over other stakeholders. The best way for Ecology to manage model error is to have their experts consult with applicants and other governments to ensure agreement. Simplified mathematical models will not address the specificity needed to make water resources management decisions.

f. Sierra Club - Establishment of an Ecology Technical Advisory Committee to Review the Use of Hydrologic Models and other Mechanisms for Determining Appropriate Mitigation. Questions have been raised regarding the appropriate use of models to determine water mitigation. Ecology should convene a group of technical experts to review models currently in use for this purpose as well as to review other techniques that might be used to determine water mitigation. The group should then make recommendations to Ecology. Ecology should then develop guidance on this topic.
g. Muckleshoot Indian Tribe - Perhaps a technical group or committee could discuss and clarify the use and uncertainties of models used in water right evaluations; however, in our experience with such processes, participants are heavily weighted toward the potential applicant with their consultants outnumbering neutral members, or resource protection members. Also, consideration should be given to other methods of technical assessments for less complex situations. Of course, strong coordination with federally-recognized tribes must occur. The arguments that modeling is seriously flawed are misleading and sometimes untrue.

8. Other

a. Tulalip Tribes - State Water Plan - While the conversations at the Joint Task Force have been very informative, we believe that taking a play out of the playbook model from California and other states that have built state-wide water plans would help to provide the clarity needed in Washington State. We believe that funding from the WA State legislature to support the creation of a state-wide water plan that includes the status and trends of Washington's water-dependent natural resources, water supplies, and agricultural, municipal and other domestic, and environmental water demands and considers a range of plausible future climate change scenarios.
b. Many issues related to water supply, mitigation, instream flows, and water rights require local planning. Trout Unlimited would encourage local review boards set up to review mitigation plans including Tribes, WDFW, senior water right holders, and others to help facilitate development and implementation of these plans.
c. WDFW - Resource managers should incorporate scientific insights about climate change impacts into decisions that have the potential to affect fish, wildlife, and the habitat they need to thrive.

Summary of Meetings

June 13, 2018

Full Committee

Meeting Documents
AVCA Recording

Agenda Item	Documents
1. Briefing on Task Force.	• Water Resource Mitigation Task Force • Final Bill Report 6091-S.E
2. Election of co-chairs.	
3. Other business.	

June 22, 2018

Full Committee

Meeting Documents
TVW Recording

Agenda Item	Documents
1. Introduction of Task Force Members.	
2. Briefing on the Foster v. Department of Ecology supreme court decision.	• Foster Mitigated Water Permits, Robin McPherson, DOE
3. Briefing on pilot projects.	• Foster Task Force, Dave Christensen, DOE • Yelm Pilot Project, Michael Grayum, City of Yelm • Sumner Pilot Project, Jason Van Gilder, City of Sumner • Spanaway Pilot Project, Jeff Johnson, Spanaway Water Company • Port Orchard Pilot Project, Thomas A. Hunter, City of Port Orchard • Bertrand Pilot Project
4. Discussion of Task Force mission, possible operating procedures, future meeting schedule.	
5. Public comment.	

September 28, 2018

Full Committee

Meeting Documents
TVW Recording

Agenda Item	Documents
1. Introductions.	
2. Discussion - committee procedures.	• Guidelines and Procedures

3. Groundwater modeling.	• Ground Water Modeling to Inform Water Resource Mitigation, Rick Dinicola, US Geological Survey Washington Water Science Center
4. Mitigation sequencing.	• Mitigation Sequencing, Dan Haller, Aspect Consulting
5. Implementing and monitoring mitigation.	• Implementing and Monitoring Mitigation, Peter Dykstra, Plauche & Carr LLP
6. Public comment.	

December 14, 2018

Full Committee

Meeting Documents
TVW Recording

Agenda Item	Documents
1. Report on pilot projects.	• Implementing RCW 90.94.090, Dave Christensen, DOE
2. Tribal treaty water rights.	• Tribal Reserved Rights, Ann E. Tweedy, Muckleshoot Indian Tribe
3. Instream flows necessary for fish and mitigation of instream flow rules.	• Instream Flows in Washington, Kiza Gates, WDFW • Office of Columbia River's Water Supply & Mitigation Solutions, G. Thomas Tebb, DOE
4. The benefits and potential limitations of conservation.	• Value of Municipal Water Conservation, Michael Brent, Cascade Water Alliance • Roza Irrigation District • Limits to Use of Conserved Water, Dave Christensen, DOE
5. Task Force discussion.	
6. Public comment.	

September 10, 2019

Full Committee

Meeting Documents
TVW Recording

Agenda Item	Documents
1. Review of previous task force meetings.	• Water Resource Mitigation Task Force • Water Resource Mitigation Task Force – 2018 Meetings
2. Discussion of mitigation pilot projects.	• Pilot Project Overview and Status Report, Dave Christensen, DOE • Discussion of Mitigation Pilot Projects – Yelm • Discussion of Mitigation Pilot Projects - Sumner • Discussion of Mitigation Pilot Projects - Spanaway • Discussion of Mitigation Pilot Projects - Bertrand
3. Department of Ecology's net ecological benefit guidance.	• Net Ecological Benefit, Dave Christensen, DOE
4. Task force discussion.	

5. Public comment.	

November 20, 2019

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Review of task force report to the Legislature.	• Water Resource Mitigation Draft Report
2. Public comment.	
3. Discussion and possible action on task force report to the Legislature.	

November 10, 2020

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Review of water mitigation options in other states.	• Colorado Ground Water Administration, Kevin Rein, CO DNR • Water Use Mitigation & Water Banking in Idaho, Remington Buyer, ID Water Resource Board • Deschutes Basin Mitigation Program, Dwight French, OR Water Resources Department
2. Yakima Basin water marketing.	• Yakima Basin Water Marketing, Justin Bezold and Lisa Pelly, Kittitas Reclamation District
3. Presentation on how the Foster decision affects Department of Ecology's work.	• Foster Focus Sheet, Dave Christensen, DOE • Water Resource Program, Dave Christensen, DOE
4. Update on the Yelm pilot project.	
5. Task Force discussion	

September 21, 2021

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Introductions of legislative members.	• Water Resource Mitigation Task Force
2. Election of Co-Chairs.	
3. Seating and introductions of non-legislative members.	
4. Update on Task Force legislation.	

5. Update on the pilot projects.	• Update on Pilot Projects, Dave Christensen, DOE
6. Update on water banking and water transfers.	• Water Right Transfers, Water Banking, and Private Investment in Public Water Resources, Dave Christensen, DOE
7. Update on drought impacts to municipalities.	• Forks' Experience Since 2015, William Fleck, City of Forks
8. Public testimony. (Remote testimony.)	
9. Task Force discussion.	

November 2, 2021

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Colorado's approach to conservation and water reuse and recharge.	• Perspectives on Colorado Water Efficiency, Kevin Reidy, CO DNR
2. Conservation.	• Water Use Efficiency in Public Works, Mike Means, DOH • Water Use Efficiency Regional Water Cooperative of Pierce County-Spanaway Water Company, Jeff Johnson, Evergreen Municipal Water Consulting • Seattle Public Utilities Water Conservation Program, Kelly O'Rourke, City of Seattle • Water Supply & Conservation, Scott Revell, Roza Irrigation District • Drought Mitigation, Urban Eberhart, Kittitas Reclamation District • Conservation as a Source for New Uses and Mitigation, Dave Christensen, DOE
3. Water reuse and recharge.	• Water Reuse and Recharge, Mike Means, DOH • Reclaimed Water Reuse/Recharge and the Water Code, Kasey Cykler, DOE • Cleaning and restoring Water Resources, Matt Kennelly, LOTT • Return Flow and Water Conservation in Agricultural Systems, G. Thomas Tebb, DOE
4. Public comment. (Remote testimony.)	
5. Task force discussion	

December 8, 2021

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Water reuse in the West: western state water reuse governance and programs.	• Water Reuse in the West, Michelle Bushman, Western States Water Council • Water Reuse in the West Report, Michelle Bushman, Western States Water Council
2. Utilities' perspective on water reuse, recharge, and reclamation.	• Water Reuse, Bob Hunter, Kitsap PUD • Port Gamble Reclamation Water Facility, Kitsap PUD • Water Reuse, Morgan Johnson, Silverdale Water District • Airway Heights Reclaimed Water Experience, Kevin Anderson, City of Airway Heights
3. Public comment. (Remote testimony.)	
4. Task Force discussion.	

May 24, 2022

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Introduction of task force members.	
2. Review of task force charter and past task force work.	
3. Review of mitigation options impacted by the Foster decision.	• Foster Decision Refresher
4. Update on the United States Geological Survey (USGS) groundwater modelling efforts.	• Southeast Puget Sound Groundwater Flow Model
5. Update on pilot projects.	• Wells and Discharge Points Dakota Creek Augmentation • Update on the City of Sumner's Pilot Project • Initial "Lessons Learned"
6. Instream flows: purpose and methodology.	• Instream flows: purpose and methodology
7. Climate change impacts on stream flows and water supply.	• Climate Change Impacts on Streamflow and Water Supply
8. Public comment. (Remote testimony.)	

9. Task force discussion.	

June 22, 2022

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Comparative review of impairment and mitigation in Washington and other western states.	• Foster Task Force Presentation • Western States Chart_04272022
2. Water conservation requirements in other states.	• California Water Urban and Agriculture • Meeting Water Demands in Southern Nevada • State Water Planning & Conservation in Texas • Texas State Water Plan
3. Public comment. (Remote testimony.)	
4. Task force discussion.	• Compilation for June 22, 2022 Task Force discussion

July 13, 2022

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Task force report development – task force discussion.	• Chart of topics Task Force discussion • WRM B. Wishart Comments 071122 • Agriculture Foster Comments 20220711
2. Public comment. (Remote testimony.)	

September 23, 2022

Meeting Documents
TVW Recording

Full Committee

Agenda Item	Documents
1. Task force report development – task force discussion.	• Water Resource Mitigation 2022 Report DRAFT
2. Public comment. (Remote testimony.)	
3. Possible executive action related to the task force report.	

October 27, 2022 **F**ull Committee	Meeting Documents TVW Recording
Agenda Item	**Documents**
1. Task force report development – task force discussion.	
2. Public comment. (Remote testimony.)	
3. Possible executive action related to the task force report.	